

Appendix A
(REPLACEMENT SHEETS AND
ANNOTATED SHEETS SHOWING CHANGES)

FIG. 2A (Continued) FIG. 2B

CONSENSUS:	cacaagcctc agcrttyggg gagarctcgt gtttcaaca agcgtccamg gccttrtact	900
CEF94-A:	..... g.t.... g..... C..... C..... g....	900
D6948-A:	..... a.C.... a..... a..... a.....	900
TY89-A:	-----	-----
CONSENSUS:	gggygcyacc atctaccta taggcttga tgggacwgc gtaatcacca grgctgtggc	960
CEF94-A:	...C..C... ..C..... C..... a.... g.....	960
D6948-A:	...t..t... ..t..... t..... t.... a.....	960
TY89-A:	-----	-----
CONSENSUS:	cgcaracaat gggctracgr cgggcacyga caacctwtg ccattcaatm ttgtgattcc	1020
CEF94-A:	...a..... g...a..... C..... t.... a.....	1020
D6948-A:	...g..... a...g..... t.... a.... C.....	1020
TY89-A:	-----	-----
CONSENSUS:	aacmarcgag ataaccagc caatcacatc catcaaaactg gagatagtga cctccaaaag	1080
CEF94-A:	...a.a.... ..C.g.... ..C..... C.....	1080
D6948-A:	...C.g.... ..C..... C..... C.....	1080
TY89-A:	-----	-----
CONSENSUS:	tgggtgtcag gcrggggac agatgtcrtg gtcrgcaagw gggagcctag cagtgcgat	1140
CEF94-A:	..... a..... g..... g.... a.....	1140
D6948-A:	..... g..... a..... a.... t.....	1140
TY89-A:	-----	-----
CONSENSUS:	ccaygtgtgc aactatccag gggccctccg tcccgtaacr ctatgrgcct acgaaagagt	1200
CEF94-A:	...t..... ..C..... g..... g....	1200
D6948-A:	...C..... ..C..... a.... a.....	1200
TY89-A:	-----	-----
CONSENSUS:	ggcaacagga tcygtcgta cggtcgcygg ggtgagcaac ttcgagctga tcccaaatcc	1260
CEF94-A:	..... C..... t.... ..C.....	1260
D6948-A:	..... t.... ..C.....	1260
TY89-A:	-----	-----

FIG. 2A (Contd.) FIG. 2C

CONSENSUS: tgaactagca aagaacctgg tyacagaata cggccgattt gaccaggag ccatgaacta 1320
CEF94-A:t..... 1320
D6948-A:C..... 1320
TY89-A: -----

CONSENSUS: cacaaaattg atactgagtg agagggaccg tcttggcatc aagaccgtmt ggccaacaag 1380
CEF94-A:C..... 1380
D6948-A:a..... 1380
TY89-A: -----

CONSENSUS: ggagtacact gactttcgyg artacttcat ggaggtggcc gacctcaact ctcccctgaa 1440
CEF94-A:t..... 1440
D6948-A:g..... 1440
TY89-A: -----

CONSENSUS: gattgcagga gcatttgggt tcaaagacat aatccgggcc mtaaggagga tagctgtgcc 1500
CEF94-A:C.....a..... 1500
D6948-A:t.....C..... 1500
TY89-A: -----

CONSENSUS: ggtgggtctcy acaytgttcc caccygcgcg tcccctagcc catgcaattg gggaaggtgt 1560
CEF94-A:c.....t..... 1560
D6948-A:t.....C..... 1560
TY89-A: -----

CONSENSUS: agactacctg ctgggcgatg aggcacaggc tgcttcagga actgctcgag ccgcgtcagg 1620
CEF94-A: 1620
D6948-A: 1620
TY89-A: -----

CONSENSUS: aaaagcaaga gctgcctcag gccgcataag gcagctract ctgcgcgcgg acaaggggta 1680
CEF94-A:g..... 1680
D6948-A:a..... 1680
TY89-A: -----

FIG. 2* (Contd.) FIG. 2D

CONSENSUS: cgaggtagtc gcgaatctrt tycaggtgcc ccagaatccy gtagtcgacg ggattctygc 1740
CEF94-A:a. .C.....Ct.. 1740
D6948-A:g. .t.....tC.. 1740
TY89-A: -----

CONSENSUS: ttcacctggg rtactccgcg gygcacacaa cctcgactgc gtgttragag aggggtgccac 1800
CEF94-A:g.....t.....a..... 1800
D6948-A:a.....C.....g..... 1800
TY89-A: -----

CONSENSUS: gctattccct gtggytyatya cgacagtga agaygccatg acacccaaaag caytgaacag 1860
CEF94-A:t..t.C.....t..... 1860
D6948-A:C.C.t.....C..... 1860
TY89-A: -----

CONSENSUS: caaaatgttt gctgtcattg aaggcgtgcg agaagayctc caacctccwt ctcaaaagagg 1920
CEF94-A:C.....t..... 1920
D6948-A:t.....a..... 1920
TY89-A: -----

CONSENSUS: atccttcata cgaactctct cyggacayag agtctatgga tatgctccag atgggggtact 1980
CEF94-A:t.....C..... 1980
D6948-A:C.....t..... 1980
TY89-A: -----

CONSENSUS: tccactggag actggggagag aytacaccgt kgtcccaata gatgatgtct gggacgacag 2040
CEF94-A:C.....t..... 2040
D6948-A:t.....g..... 2040
TY89-A: -----

CONSENSUS: cattatgctg tccaaagayc ccatacctcc tattgtggga aacagyggaa aycatgccaat 2100
CEF94-A:t.....t..... 2100
D6948-A:C.....C..... 2100
TY89-A: -----

~~FIG. 2A~~ [Contd.] FIG. 2E

CONSENSUS: agcttacatg gatgtgttcc gacccaaagt cccmatccat gtggcyatga cgggagccct 2160
CEF94-A:a.....t..... 2160
D6948-A:c..... 2160
TY89-A: -----

CONSENSUS: caaygcytrt ggcgagattg agaamgtrag ctttagaagc accaagctcg ccaactgcaca 2220
CEF94-A: ...t..t.g.a.a. 2220
D6948-A: ...C..C.a.C.g. 2220
TY89-A: -----

CONSENSUS: ccgacttgcc ctayaagttgg ctggtcccgg wgcattygay gtraacacccg ggyccaactg 2280
CEF94-A:t.....a.....c..t..a.....c..... 2280
D6948-A:c.....t.....t.....c..g.....t..... 2280
TY89-A: -----

CONSENSUS: ggcraagttt atcaaacggt tyctcacaa tccmcgmgaac tgggacaggy tmccytacct 2340
CEF94-A: ...a.....c.....c.....a..C... ..C.C..... 2340
D6948-A: ...g.....t.....a..C... ..C.C..... 2340
TY89-A: -----t.....a..C..... 44

CONSENSUS: caacctwccm tayctyccac cmamwgcwgg acgycagtwc sayctkgccm tggchghtc 2400
CEF94-A:a..a..C..t....C.at..a.. ..C....a..C.C..t...a.. ..t..a.. 2400
D6948-A:t..a..C..t....C.at..a.. ..C....a..g.C..g...a...C..t.. 2400
TY89-A:t..c..t..C....a.ca..t.. ..t....t..C.t..g...C....a..C... 104

CONSENSUS: mgagttcaaa gagaccccmg aactcgarr ygcygtsmgw gcmatggamg cwgcwgcmaa 2460
CEF94-A: a.....C.gag t..C..ca.a ..a.....a..a..a..C... 2460
D6948-A: a.....C.gag C..C..ca.a ..C.....a..a..a..C... 2460
TY89-A: C.....a.aga C..t..gc.t ..a.....C..t..t..a.. 164

CONSENSUS: cgtsgaccca ytrttccrmt cwgcdctcmr bgtsttcattg tggtytgaag araaygggat 2520
CEF94-A: ...g.....C.a....aa..t..a...ag t..g..... ..C..... ..g..t..... 2520
D6948-A: ...g.....C.g....aa..t..g...ag C..g..... ..C..... ..g..t..... 2520
TY89-A: ...C.....t..g....gc..a..t...ca g..C..... ..t..... ..a..C..... 224

~~FIG. 2A~~ (Continued) FIG. 2F

CONSENSUS: tgtracygay atggcyaaact tgcgctcag cgacccgaac gmcaymga tgmraattt 2580
CEF94-A: ...g.t.c...C... ..a... ..C.tc... ..Cga.... 2580
D6948-A: ...g.t.t...C... ..a... ..C.tc... ..Cgc.... 2580
TY89-A: ...a.c.c...t... ..C... ..a.ca... ..aaa.... 284

CONSENSUS: ycthgcaaay gcwccmcarg cmgmgagcaa gtcgcaragr gccaaagtayg gsacrgcwg 2640
CEF94-A: t..t....C..a.a.a..a..C... ..a.g... ..C..g.a.a.. 2640
D6948-A: t..C....C..a.a.a..a..C... ..a.a.. ..C..g.a.a.. 2640
TY89-A: C..a....t..t..C..g..C..a... ..g.g... ..t..C.g..t.. 344

CONSENSUS: ctacggagtg gaggcymgrg gcccacdcc agargargca cagagggara aagacacacg 2700
CEF94-A:tc.g.a.. ..g.a... ..a... ..a... ..a... 2700
D6948-A:cc.g.t.. ..g.a... ..a... ..a... ..a... 2700
TY89-A:ta.a.g.. ..a.g... ..g... ..g... ..g... 404

CONSENSUS: gatctcmaag aagatggara cbatgggcat ctacttygca acaccrgaat gggtagcact 2760
CEF94-A:a... ..g... ..C... ..t... ..a... ..a... ..a... 2760
D6948-A:a... ..g... ..t... ..t... ..a... ..a... ..a... 2760
TY89-A:C... ..a... ..g... ..C... ..g... ..a... ..a... 464

CONSENSUS: caaygggcac cgrggsccaa gcccggcca gctvaagtac tggcaraaca camgagaaat 2820
CEF94-A: ...t.... ..a.g... ..a... ..a... ..g... ..C... ..C... 2820
D6948-A: ...t.... ..g.g... ..a... ..g... ..g... ..C... ..C... 2820
TY89-A: ...C.... ..a.C... ..a... ..C... ..a... ..a... ..a... 524

CONSENSUS: accdgahccm aacgaggact aycyagacta ygtgcaygcr gagaagagcc ggttggrtc 2880
CEF94-A: ...g..C..a... ..t... ..C... ..t..a... ..a... ..a... ..a... 2880
D6948-A: ...t..t..a... ..C... ..C... ..t..a... ..a... ..a... ..a... 2880
TY89-A: ...a..a..C... ..C.C... ..t... ..C.g... ..g... ..g... ..g... 584

CONSENSUS: agaagaacar rtcytaaggg cagcyacgtc gatctacggg gctccaggac aggcwgarc 2940
CEF94-A:a..a..C... ..t... ..a... ..a... ..a... ..a... ..a... 2940
D6948-A:a..a..C... ..t... ..a... ..a... ..a... ..a... ..a... 2940
TY89-A:g..g..t... ..C... ..a... ..a... ..t... ..a... ..a... 644

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ANNOTATED SHEET SHOWING CHANGES

~~FIG. 2A~~ (Contd.): FIG. 2C

CONSENSUS:	acccaagcy	ttcatagacg	aagtygccar	rgtctatgaa	atcaaccatg	grcgtggycc	3000
CEF94-A:	.....t	.....	.....t....a	a.....	.....	.....a.....c..	3000
D6948-A:	.....c	.....	.....c....a	a.....	.....	.....g.....c..	3000
TY89-A:	.....c	.....	.....c....g	g.....	.....	.....g.....t..	704

CEP94-A:	a.....a	t.....t.	gactgcgatg	gagatgaagc	atcgcaatcc	3060
D6948-A:	c.....a	t.....c.				3060
TY89-A:	a.....g..g	.C.....C.				764

CONSENSUS:	caggcgggct cyaccaaac cmaagccaaa acccaatgct ccawcacaga gaccccctgg	3120
CEF94-A:	..... t..... C..... ..a.....	3120
D6948-A:	..... C..... C..... ..a.....	3120
TY89-A:	..... C..... a..... ..t.....	824

CONSENSUS:	wcggctgggc	cgctggatca	ggrcbgtctc	tgaygaggac	ytkgagtga	gywcctggga	3180
CEF94-A:	t.....	.....	..a.c.....	..t.....	c.t.....	..ta.....	3180
D6948-A:	t.....	.....	..g.t.....	..t.....	c.t.....	..ct.....	3180
TY89-A:	a.....	.....	..a.g.....	..c.....	t.g.....	..ct.....	884

CONSENSUS:	gtctcccgac	accacccgcg	caggygtgga	caccaattmr	kmmhtaswrm	atycsaaatt	3240
CEF94-A:	.....	.....	...t....	.....cg	gact..caac	..C.C.....	3240
D6948-A:	.....	.....	...C....	.....cg	gcca..caac	..C.C.....	3240
TY89-A:	.....	.....	...t....	.....aa	tcac..gtga	.t.g.....	944

CONSENSUS:	ggatccggtc gcgggtcccc	3260
CEF94-A:	.....	3260
D6948-A:	.....	3260
TY89-A:	.....	964

~~FIG. 28~~ FIG. 3A

CONSENSUS: ggatacgaatg ggtctgaccc tctgggagtc acgaattaac gtggctacta ggggygatr 60
 CEF94-B:
 D6948-B:t...gc 60

CONSENSUS: ccrccgctrg ctgccacgtt agtggctcct cttcttgatg attcttccac catgagtgcac 120
 CEF94-B: ..g.....g.g... ..g..... 120
 D6948-B: ..a.....a.a... ..a..... 120

CONSENSUS: rtttcaaya gtccacaggc gcgaagcamg atmtcagcag cggttcggcat aaagcctacw 180
 CEF94-B: a.....C.C. .C..... ..t 180
 D6948-B: g.....t.a. .a..... ..a 180

CONSENSUS: gctggacarg aytggaaga actcytgatc cctaargtyt gggtgccacc tgaggatccs 240
 CEF94-B:a. C..... .t..... .a.a.t.g 240
 D6948-B:g. t..... .C..... .g.c.c 240

CONSENSUS: ytkgccagcc ctatgctgwt ggcmaagttc ctcaargara acggctacaa rrttytgcag 300
 CEF94-B: c.t.....a.. ..a..... ..a..g. ag..t.... 300
 D6948-B: t.g..... ..t..... ..g.a. ga..c..... 300

CONSENSUS: ccacggtctc tccyggagaa tgaggagtat gagaccgayc aaatactccc wgacytagcw 360
 CEF94-B:g.C....C. a...t...a 360
 D6948-B:a.t....t. t...C....t 360

CONSENSUS: tggaatgmgrc agatagargg rgctgtttta aaaccmacyc tatctctccc yattggagay 420
 CEF94-B:C.a.a.. g..... g.....C.t.t.....t 420
 D6948-B:a.g.g.. a..... a..a.C.c.....c 420

CONSENSUS: caggagtact tccwaarta ctaccaaca caycgcccka gcaaggaraa gcccaatgcg 480
 CEF94-B: a.g. t....t.g. 480
 D6948-B: t.a. C....g.a. 480

FIG. 28 (Continued) FIG. 3B

CONSENSUS: taccgcgcmg ayatcgcayt actcaagcag atgatytyacy tgtttctcca ggttccmgag 540
CEF94-B:a. .C.....C.t...Ca... 540
D6948-B:C. .t.....t.C...tC... 540

CONSENSUS: gccammgakr rcctwaarga tgargtmacc ctmytraccc aaaacatwag rgayaargcc 600
CEF94-B:ac..gg g...a..g.. ..a..a... ..Ct.g... ..a...a.. g..C..g... 600
D6948-B:Ca.ta a...t..a.. ..g..C... ..ac.a....t.. a..t..a... 600

CONSENSUS: tayggragt ggcactacat gggacargcm acymgacttg tkgcyatgaa rgaggtygcc 660
CEF94-B: ..t..a....a..a ..tc..... .g..C..... g.....C... 660
D6948-B: ..C..g....g..c ..ca..... .t..t.... a.....t... 660

CONSENSUS: actggragaa acccaaaciaa rgatcctcta aagcttggtt acacytttga gagcatmgcs 720
CEF94-B:a....g.....t.....C..g 720
D6948-B:g....a.....C.....a..c 720

CONSENSUS: cagctacttg acatcacwyt accggtaggc ccaccgggtg aggatgacaa gccctgggtr 780
CEF94-B:ac.....tt.....g.....a 780
D6948-B:tt.....g.....C.....a 780

CONSENSUS: ccaactcaciaa grgtgcccgtc amggatgttg gtwtgacgg gmgacgtaga tggsgamttt 840
CEF94-B:a..... .C..... ..a..... .a..... ..C..C... 840
D6948-B:g..... .g..... ..t..... .C..... ..g..a... 840

CONSENSUS: gaggttgarg aytaccttcc caaaatcaac ctcaagtcac caagtggact rccmtatgtw 900
CEF94-B:a. .t.....a.....a.....a 900
D6948-B:g. .C.....g.....g..C.....t 900

CONSENSUS: ggtcgccacca aaggagarac wattggsgag atgatagcya tmtcraacca gtttctymga 960
CEF94-B:g... a.....C...t.. .C..a.....ca.. 960
D6948-B:a.. t.....g...C.. a..g.....tc.. 960

FIG. 28 (Cont'd) FIG. 3C

CONSENSUS:	gagctatcar	crcgtgtgaa	gcarggtgca	gggacaaaarg	ggtcraacaa	gaagaagctr	1020
CEF94-B:	.....a	a...t...	...a.....	.....g.	...a.....	.....a	1020
D6948-B:	.....g	.g...C...	...g.....	.....a.	...g.....	.....g	1020
CONSENSUS:	ctcagcatgy	taagtgacta	ytggtactta	tcatgygggc	ttttgtttcc	maaggctgar	1080
CEF94-B:	.....t	.....t	.....t	.....C...	.....a	.....a	1080
D6948-B:	.....C	.....C	.....C	.....t	.....C	.....g	1080
CONSENSUS:	aggtacgaca	aaagyacatg	gctcaccaag	accgkkaaca	tatggtcagc	tccatcmcca	1140
CEF94-B:	.....	...t....	.....	.....g	.....	.....C...	1140
D6948-B:	.....	...C....	.....	...t...	.....	.....a...	1140
CONSENSUS:	acacacctca	tgatctcwat	gatmacctgg	ccggtgatgt	ccaayagccc	aaayaacgtg	1200
CEF94-B:	.....	.....t..	...C.....	.....	...C.....	...t.....	1200
D6948-B:	.....	.....a..	...a.....	.....	...t.....	...C.....	1200
CONSENSUS:	ttgaacattg	argggtgtcc	rtcactctac	aarttcaacc	cgtyagagg	wgggytraac	1260
CEF94-B:	.....	a.....	a.....	...a.....	...C.....	a...t.g...	1260
D6948-B:	.....	.g.....	g.....	...g.....	...t.....	t...c.a...	1260
CONSENSUS:	aggatcgtsg	agtgatawt	ggcyccggaw	gaaccaagg	cyytwgtata	tgckgacaac	1320
CEF94-B:	.....C.	.....t.	...C.....	a.....	...t.....	...g.....	1320
D6948-B:	.....g.	.....a.	...t.....	.....	...t.....	...t.....	1320
CONSENSUS:	atatacatgg	tycactcmaa	cacgtgggtac	tcaattgacc	tagagaagg	tgaggcaaac	1380
CEF94-B:	.....	...C....	.....	.....	.....	.....	1380
D6948-B:	.....	...t....	...C...	.....	.....	.....	1380
CONSENSUS:	tgackckgyc	aacacatgca	rgccgcmatg	tactacatmc	tyaccagagg	rtggctcmgay	1440
CEF94-B:	.....t..C.	.....	a.....	.....	...C.....	g.....a..c	1440
D6948-B:	.....g..t.	.....	g.....	...C...	.....	a.....C..t	1440
CONSENSUS:	aacggygacc	cmatgttcaa	tcaracatgg	gccacctttg	csatgaacat	tgccccwgct	1500
CEF94-B:	.....C...	a.....	...a.....	.....	...C.....	...t...	1500
D6948-B:	.....t....	...C.....	...g.....	.....	...g.....	...a...	1500

~~FIG. 2B~~ (Contd.) FIG. 3D

CONSENSUS:	ctagtkgtgg	actcatortg	ycatgatwatg	aacckkara	tyaagacmta	tggatcaaggc	1560
CEF94-B:	.....g....	.....g....	c.....a....	.....g..a..	.t.....c..	.....	1560
D6948-B:	.....t....	.....a..	t.....t....	.....t..g..	.c.....a..	.....	1560
CONSENSUS:	agygggaatg	cagccacstt	catcaacaac	cayctyytka	gcacsctwgt	gctwgaccag	1620
CEF94-B:	..C.....	.....g..	.....	..C..ct.g.	...g..a..	..t.....	1620
D6948-B:	..t.....	.....C..	.....	..t..tc.t.	...c..t..	...a.....	1620
CONSENSUS:	tggaacytga	tgarrcarcc	yagwccagac	agcgargagt	tcaartcaat	tgargacaag	1680
CEF94-B:	.....C....	...ga..g..	C..a.....	.....g....	....a.....	...g.....	1680
D6948-B:	.....t....	...ag..a..	t..t.....	.....a....	...g.....	...a.....	1680
CONSENSUS:	ctrnggyatca	acttyaagat	tgagaggctcc	attgatgaya	tyaggggcaa	gctsagacag	1740
CEF94-B:	..a..t....	.....t....	.....	.....t..	.C.....	...g.....	1740
D6948-B:	..g..C....	.....C.....	.....	.....C..	.t.....	...C.....	1740
CONSENSUS:	cttgtccycc	ttgcacaacc	agggtacctg	agtggrrggg	tygaaccaga	rcaayccagc	1800
CEF94-B:	.....t..	.....	.....	.....g....	.t.....	a...t....	1800
D6948-B:	.....C....	.....	.....	.....a....	.C.....	g...C.....	1800
CONSENSUS:	ccaaactgtwg	agctkgacct	actmgrrtgg	tcwgwcacwt	acagcaaaga	tctygggatac	1860
CEF94-B:	.....t..	.....t....	...a..g....	...a..t..a.	.....	...C.....	1860
D6948-B:	.....a..	...g.....	...C..a....	..t..a..t.	.....	...t.....	1860
CONSENSUS:	tatgtgccgg	tgcttgacaa	ggaacgcyta	ttttgytctg	ctgcgtatcc	caarggrgta	1920
CEF94-B:	.....	.....	.....C..	.....t....	.....	...g..a...	1920
D6948-B:	.....	.....	.....t..	.....C....	.....	...a..g...	1920
CONSENSUS:	gagaayaara	gyctcaartc	caargtyggg	atcgagcarg	catacaargt	wgtcagggtay	1980
CEF94-B:	.....C..g.	.t....g..	...a..C....	.....g..	.....g..	a.....t	1980
D6948-B:	.....t..a.	.C.....a..	...g..t....	.....a..	.....a..	t.....c	1980
CONSENSUS:	gaggcggtga	ggttggtagg	tggttggaac	taccactcc	tgaacaaagc	ytgcaagaay	2040
CEF94-B:	.....	.....	.....	.....	.....	C.....t	2040
D6948-B:	.....	.....	.....	.....	.....	t.....c	2040

FIG. 2B (Continued) FIG. 3E

CONSENSUS: aaygcargyg cmgctcgggg gcactctggag gccaaaggggt tcccrctcga ygagttcctm 2100
CEF94-B: ..C...g.C. .C..... .g..... .a..... C.....a 2100
D6948-B: ..t...a.t. .a..... .g..... .g..... t.....c 2100

CONSENSUS: gccgagtggg cwgagytgtc mgagtctggw gargcyttcg aaggcttcaa yatcaagctg 2160
CEF94-B:t...C.... a.....t .g.C....t..... 2160
D6948-B:a...t.... C.....a .a.t....C..... 2160

CONSENSUS: acmgtaacay ckgagagcct mgccgaactk aacarrrccag tacccccacaa rccyccaaat 2220
CEF94-B: ..C.....t .t..... a.....gag....g.C..... 2220
D6948-B: ..a.....C .g..... C.....tga....a.t..... 2220

CONSENSUS: gtcaacagac cagtcaaacac yggkgrgrctm aaggcagtc gcaaygcct caagaccggy 2280
CEF94-B:t..... .t..g..a..CC.....t..... 2280
D6948-B:t..... C..t..g..at.....C..... 2280

CONSENSUS: cggtayagra aygaagccgg actragtgy ctcgtcctyc tagccacmgc mmgmagccgw 2340
CEF94-B:C..g. .C..... .g.....tt.....a.. aa.a.....t 2340
D6948-B:t..a. .t..... .a.....CC..... CC.C.....a 2340

CONSENSUS: ctrcargayg cagtyaaggc caaggcagar gccgagaaac tccacaagtc yaagccmgay 2400
CEF94-B: ..g..a..t.t..... .a..... .a..... C.....a..c 2400
D6948-B: ..a..g..C.C..... .g..... .t.....C..t 2400

CONSENSUS: gaccccgatg cagactgggtt ygaamgrtca gaaacyctgt cagacctkct ggagaaagcc 2460
CEF94-B:t..... .C...a..a...t....t.... 2460
D6948-B:t..... .t...C.g...C....g.... 2460

CONSENSUS: gacatygcc aagaggtcgc ycactcagca ctcgtggaaa caagcgacgc ycttgaagcr 2520
CEF94-B:C....t..... C..... .a..... C.....a 2520
D6948-B:t..... .t..... .t..... .t.....g 2520

CONSENSUS: gtycagtcra cytcmtgtga cacyccmaag taccagarg tyaagaaccc acagaccgcc 2580
CEF94-B: ..t.....g. .t..C.... .t..C....a. .C..... 2580
D6948-B: ..C.....a. .C..a.... .C..a....g. .t..... 2580

~~FIG. 2B~~ (Cont'd) FIG. 3F

CONSENSUS: tccaaccccg ttgttgggt ccactgccc gccaagagrg ccaccggtgt ccaggcmgct 2640
CEF94-B:a.C... 2640
D6948-B:g.a... 2640

CONSENSUS: cttctcggag caggracgag cagaccaatg gggatggagg cyccaacacg gtccaagaac 2700
CEF94-B:a.C.t. 2700
D6948-B:g.t. 2700

CONSENSUS: gccgtgaaa tggccaaamg gcggcaacgc caaargaga gccgccaaya gccatgatgg 2760
CEF94-B:C.g.C. 2760
D6948-B:a.a.t. 2760

CONSENSUS: gaaccactca agaagaggac actaayccca gaccccgat ccccggcctt cgcctgcggg 2820
CEF94-B:t. 2820
D6948-B:C. 2820

CONSENSUS: ggccccc
CEF94-B: 2827
D6948-B: 2827

FIG. 3A 4A

CONSENSUS: MTNLQDQTQQ	IVPFIRSLIM	PTTGPASIPD	DTLEKHTLRS	ETSTYNLTVG	DTGSLIVFF	60
CEF94-PP:	.....	.....	.....	.....	.....	60
D6948-PP:	.....	.....	.....	.....	.....	60
TY89-PP:	-----	-----	-----	-----	-----	
CONSENSUS: PGFPGSIVGA	HYTLQSNQNY	KFDQMLLTAQ	NLPASYNCR	LVSRLTVRS	STLPGGVYAL	120
CEF94-PP:	.....	.....	.....	.....	.....	120
D6948-PP:	.....	.....	.....	.....	.....	120
TY89-PP:	-----	-----	-----	-----	-----	
CONSENSUS: NGTINAVTFQ	GSLSELTQVS	YNGLMSATAN	INDKIGNVLV	GEGTVLSLP	TSYDLGYVRL	180
CEF94-PP:	.....	.....	.....	.....	.....	180
D6948-PP:	.....	.....	.....	.....	.....	180
TY89-PP:	-----	-----	-----	-----	-----	
CONSENSUS: GDPIPAIGLD	PKMVATCDSS	DRPRVYTITA	ADDYQFSSQY	Q.GGVTTILF	SANIDAITSL	240
CEF94-PP:	.....	.....	.....	.....	.....	240
D6948-PP:	.....	.....	.....	.....	.....	240
TY89-PP:	-----	-----	-----	-----	-----	
CONSENSUS: S.GGELVFQT	SV.GL.LGAT	IYLLIGFDGTA	VITRAVAA.N	GLT.GTDNL.	PFN.VIPT.E	300
CEF94-PP:	V.....	H.V.....	N.....	T.....	L.....	300
D6948-PP:	I.....	Q.I.....	D.....	A.....	I.....	300
TY89-PP:	-----	-----	-----	-----	-----	
CONSENSUS: ITQPITSIKL	EIVTSKSGGQ	AGDOMSWA.	GSLAVTIHGG	NYPGALRPVT	LVAYERVATG	360
CEF94-PP:	.....	.....	.....	.....	.....	360
D6948-PP:	.....	.....	.....	.....	.....	360
TY89-PP:	-----	-----	-----	-----	-----	
CONSENSUS: SVTVAGVSN	FELIPNPELA	KNLVTEYGRF	DPGAMNYTKL	ILSERDRLGI	KTVWPTREYT	420
CEF94-PP:	.....	.....	.....	.....	.....	420
D6948-PP:	.....	.....	.....	.....	.....	420
TY89-PP:	-----	-----	-----	-----	-----	

~~FIG. 3A~~ (Continued) FIG. 4B

CONSENSUS: DFEYFMEVA DLNSPLKIAG AFGKDIIRA .RRIAPVVS TLFPPAAPLA HAIGGVVDYL	480
CEF94-PP: I	480
D6948-PP: L	480
TY89-PP:	
CONSENSUS: LGDEAQAASG TARAASGKAR AASGRIRQLT LAADKGYEVV ANLFQVPQNP VVDGILASPG	540
CEF94-PP:	540
D6948-PP:	540
TY89-PP:	
CONSENSUS: .LRGAHNDC VLREGATLFP VVITVEDAM TPKALNSKMF AVIEGVREDL OPPSQRSFI	600
CEF94-PP: V	600
D6948-PP: I	600
TY89-PP:	
CONSENSUS: RTLSGHRVYG YAPDGVLPLE TGRDITVUPI DDVWDDSIML SKDPIPIVG NSGNLAIAYM	660
CEF94-PP:	660
D6948-PP:	660
TY89-PP:	
CONSENSUS: DVFRPKVPIH VAMTGALNA. GEIE.VSFRS TKLATAHRLG LKLAGPGAFF VNTG.NWATF	720
CEF94-PP: C K	720
D6948-PP: Y N	720
TY89-PP:	
CONSENSUS: IKRFPNPRD WDRLPYLNL PYPNAGRQY HLMAAASEFK ETPELESVR AMEAAANVDP	780
CEF94-PP:	780
D6948-PP: D	780
TY89-PP: T F L D	58
CONSENSUS: LFQSALSVFM WLEENGIVTD MANFALSDPN AHRMRNFLAN APQAGSKSOR AKYGTAGYGV	840
CEF94-PP:	840
D6948-PP:	840
TY89-PP: R Q K	118

~~FIG. 3A~~ ~~Continued~~ FIG. 4C

CONSENSUS:	EARGPTPEEA	QREKDRISK	KMETMGIYFA	TPEWVALNGH	RGPSGOLKY	WONTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	.....	.....	.....	.....	.....	.....	900
TY89-PP:	.....	.....	.....	.....	.....	.....E.	178
CONSENSUS:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APGOAEPPQA	FIDEVAKVYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	.....	.....	.....	.....	.....	.....	960
TY89-PP:	.....P.....	.....V.....	.....	.....	.....R.....	.....	238
CONSENSUS:	QMKDLLLTAM	EMKHRNPRRA	PPKPKPKPNA	PTQRPGRGLG	RWIRTVSDED	LE	1012
CEF94-PP:	.....	.....	L.....	.....	.....	.....	1012
D6948-PP:	.....	.....	.....	.....	.....A.....	.....	1012
TY89-PP:	.....	.....	.....S.....	.....	.....	.....	290

FIG. 3A

CONSENSUS: MSD.FNSPQA RS.ISAAGI KPTAGQDVEE LLIPKVVVPP EDPLASPSRL AKFLRENGYK	60
CEF94-VP1: . . . I. T.	60
D6948-VP1: . . . V. K.	60
CONSENSUS: .LQPRSLPEN EEYETDQILP DLAWMRQIEG AVLKPTLSLP IGDQYEFKY YPTHRPSKEK	120
CEF94-VP1: V.	120
D6948-VP1: I.	120
CONSENSUS: PNAYPPDIAL LKQMIYLFLO VPEA. . . . LKD EVTLTQNIR DKAYGSGTYM GOATRLVAMK	180
CEF94-VP1:	180
D6948-VP1:	180
CONSENSUS: EVATGRNPKNK DPLKIGYTFE SIAQLLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD	240
CEF94-VP1:	240
D6948-VP1:	240
CONSENSUS: G.FEVEDYLP KINLKSSSGL PYVGRTKGET IGEMIAISNQ FREL.S.LLK QGAGTKGSNK	300
CEF94-VP1: . . . D.	300
D6948-VP1: . . . E.	300
CONSENSUS: KKLLSMLSDY WYLSGGLLEP KAERYDKSTW LTKTRNIWSA PSPTHLMISM ITWPVMSNSP	360
CEF94-VP1:	360
D6948-VP1:	360
CONSENSUS: NNVLNIEGCP SLYKFNPFRG GLNRIVEWI. AP.EPKALVY ADNIIYIVHSN TWYSIDLEKG	420
CEF94-VP1:	420
D6948-VP1:	420
CONSENSUS: EANCTRQHMVQ AAMYIILTRG WSDNGDPMEN QTWATEFAMNI APALVVDSSC LIMNLQIKTY	480
CEF94-VP1:	480
D6948-VP1:	480
CONSENSUS: GQSGNAATF INNHLSTLV LDQWNLM.OP .PDSEEFKSI EDKLGINFKI ERSIDDIRGK	540
CEF94-VP1:	540
D6948-VP1:	540

FDs- 38 ~~(Contd.)~~ FIG. 5B

CONSENSUS: LRQLV.LAQF GYLSGGVEPE Q.SPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP	600
CEF94-VP1: .....L.....S.....	600
D6948-VP1: .....P.....	600
CONSENSUS: KGVENKSLKS KVGIEQAYKV VRYEALRLVG GWNYPLLNKA CKNNA.AARR HLEAKGFPLD	660
CEF94-VP1: .....G.....	660
D6948-VP1: .....S.....	660
CONSENSUS: EFLAEWSELS EFGEAFEGFN IKLTVT.ESL AELN.PVPPK PPNVNRPVNT GGLKAVSNAL	720
CEF94-VP1: .....S.....K.....	720
D6948-VP1: .....P.....R.....	720
CONSENSUS: KTGRRYNEAG LSGLVLLATA RSRLQDAVKA KAEAEKLHKS KPDDPDADWF ERSETLSDLL	780
CEF94-VP1: .....K.....	780
D6948-VP1: .....S.....	780
CONSENSUS: EKADIASKVA HSAIVETSDA LEAVQSTSVY TPKYPEVKNP QTASNPPVGL HLPKRATGV	840
CEF94-VP1: .....K.....	840
D6948-VP1: .....R.....	840
CONSENSUS: QAALLGAGTS RPMGMEAPTR SKNAVKNMAKR RQRQKESRQ.	881
CEF94-VP1: .....Q P	881
D6948-VP1: -	879

FIG. 3c 6

CONSENSUS:	MVSRDQTNR	SDD.PARSNP	TDCSVHTEPS	DANNRTGVHS	GRHP.EAHSQ	VRDLDLQFDC	60
D6948-VP5:	.....	..E.....	.....	.....	...R.....	.....	60
CEF94-VP5:	.....	..K.....	.....	.....	...G.....	.....	60
CONSENSUS:	GHRVRANCL	FPW.PWLNCG	CSLHTAEQWE	LQVRSDAPDC	PEPTGQLQLL	QASESESHSE	120
D6948-VP5:	.....	...F.....	.....	.....	.....	.....	120
CEF94-VP5:	.....	...I.....	.....	.....	.....	.....	120
CONSENSUS:	VKHT.WWRLC	TK.HHKRRDL	PRKPE				145
D6948-VP5:	....P.....	..W.....	.....				145
CEF94-VP5:	....S.....	..R.....	.....				145

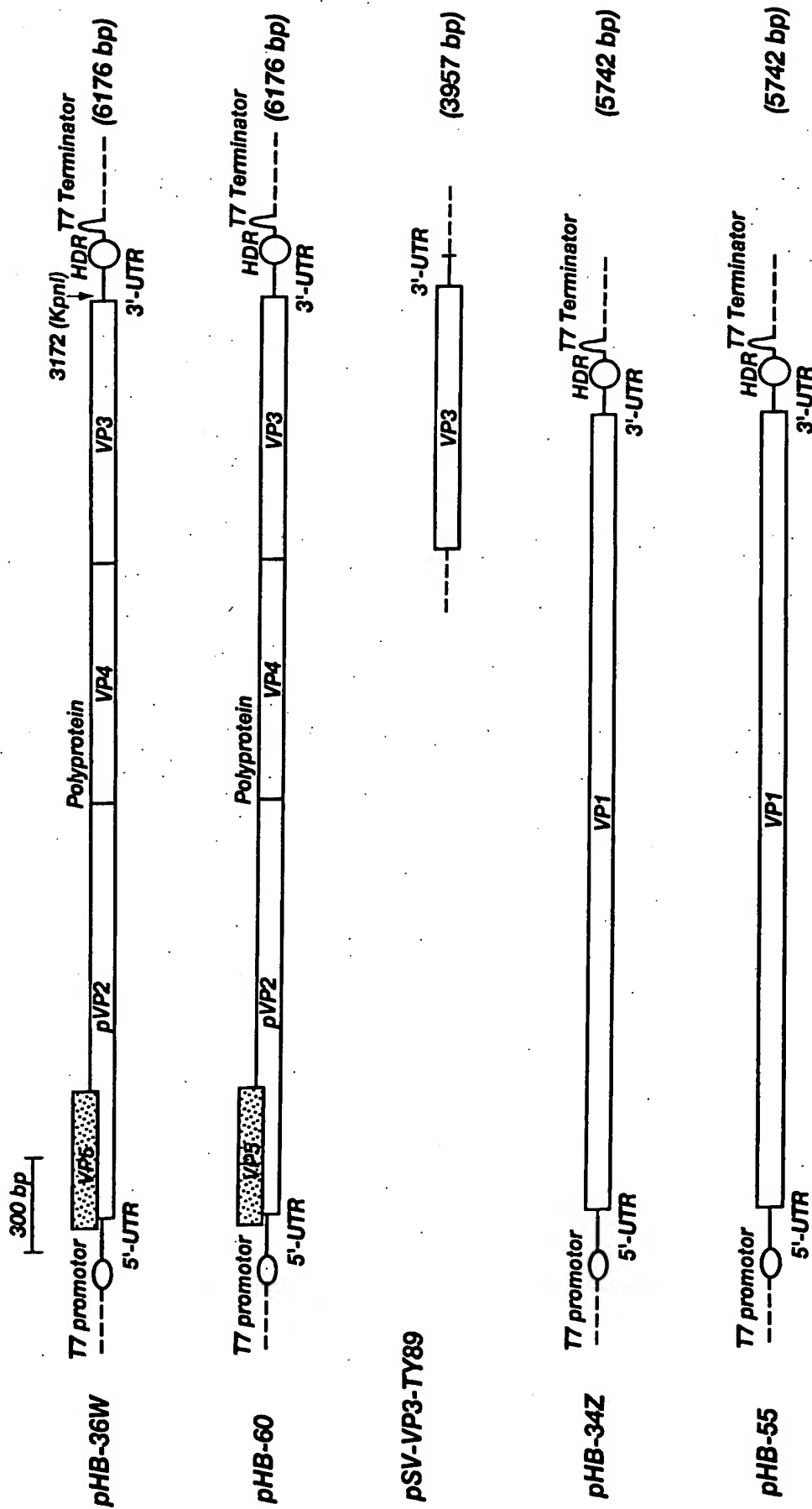


FIG. 7

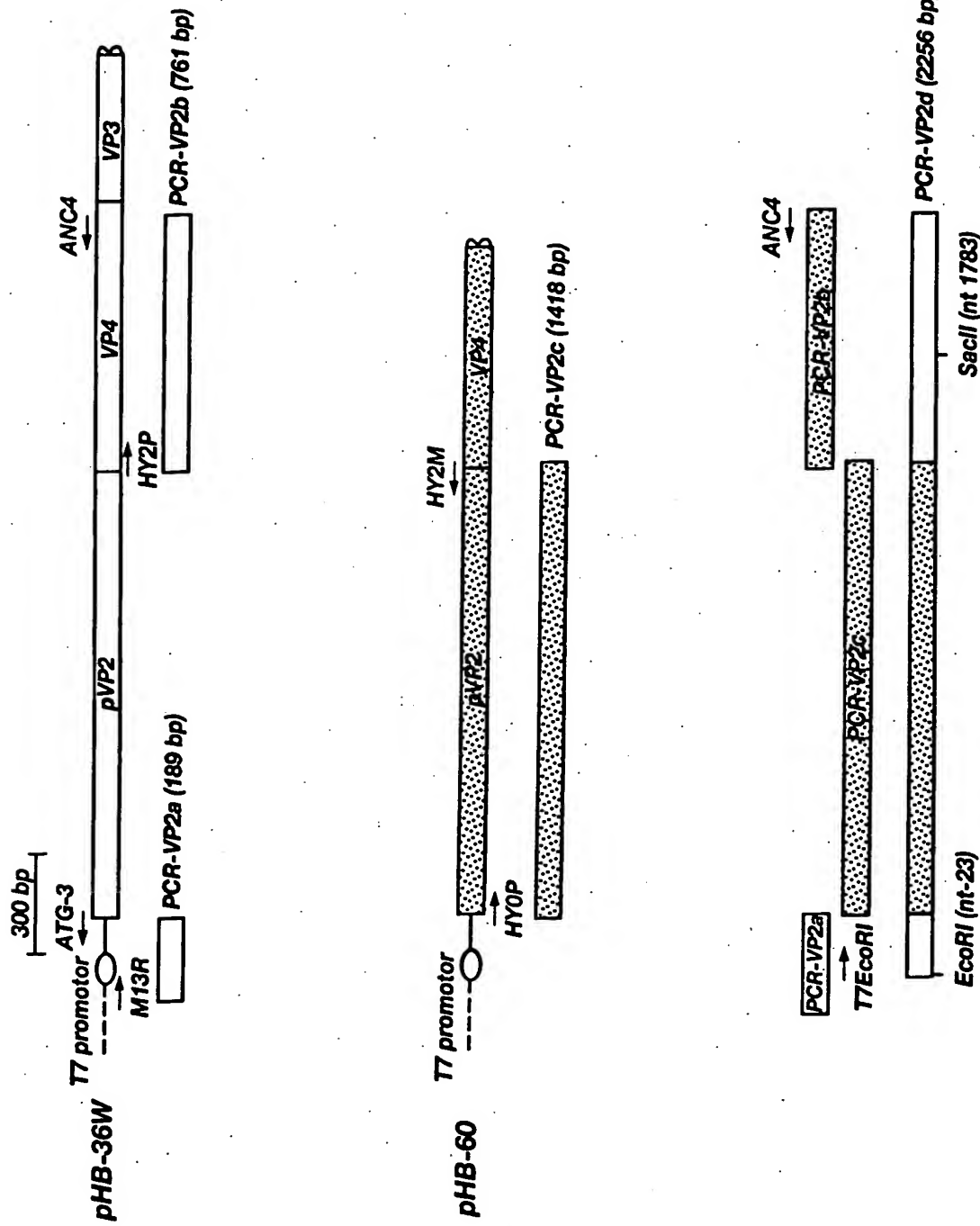


FIG. 5A 8A

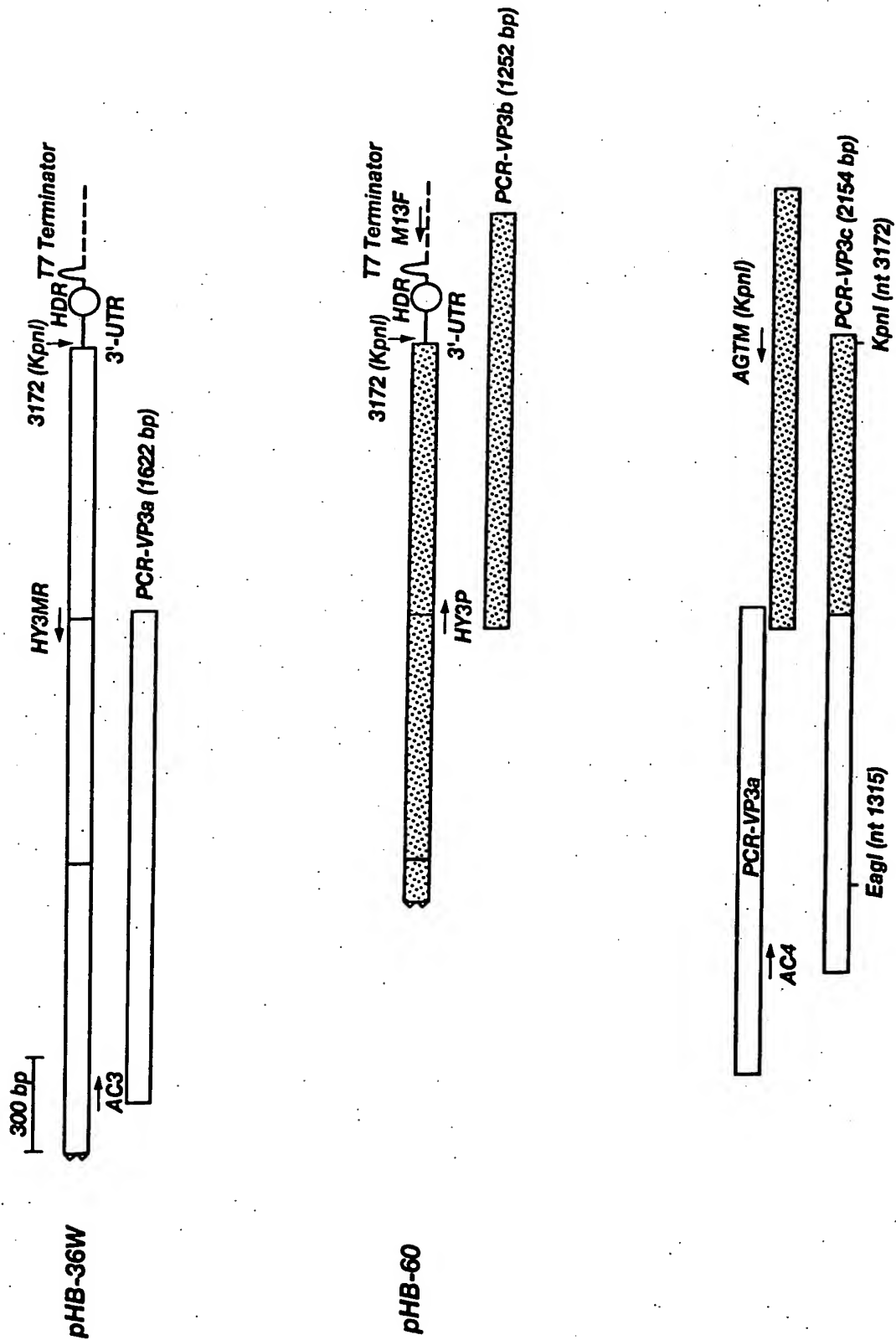


FIG. 5B 80

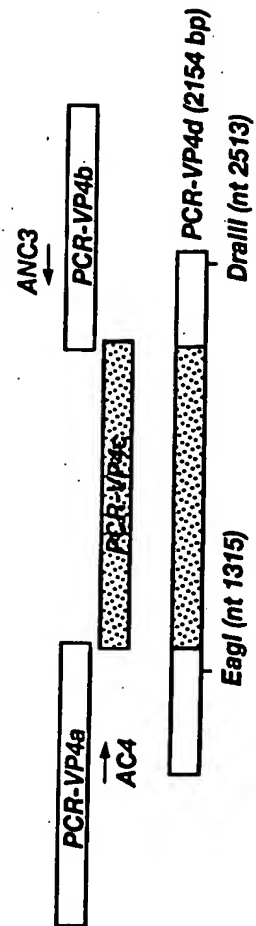
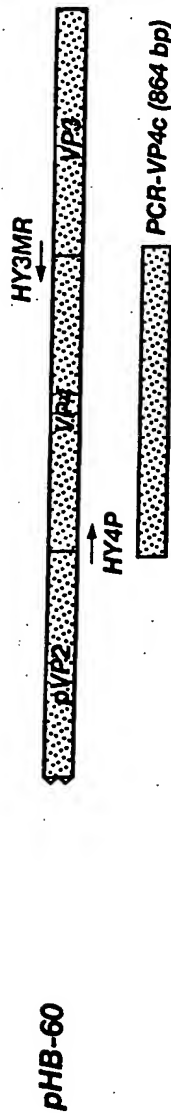
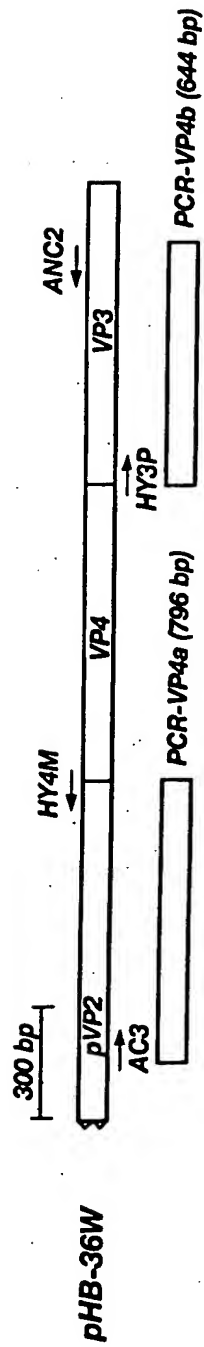


FIG. 36

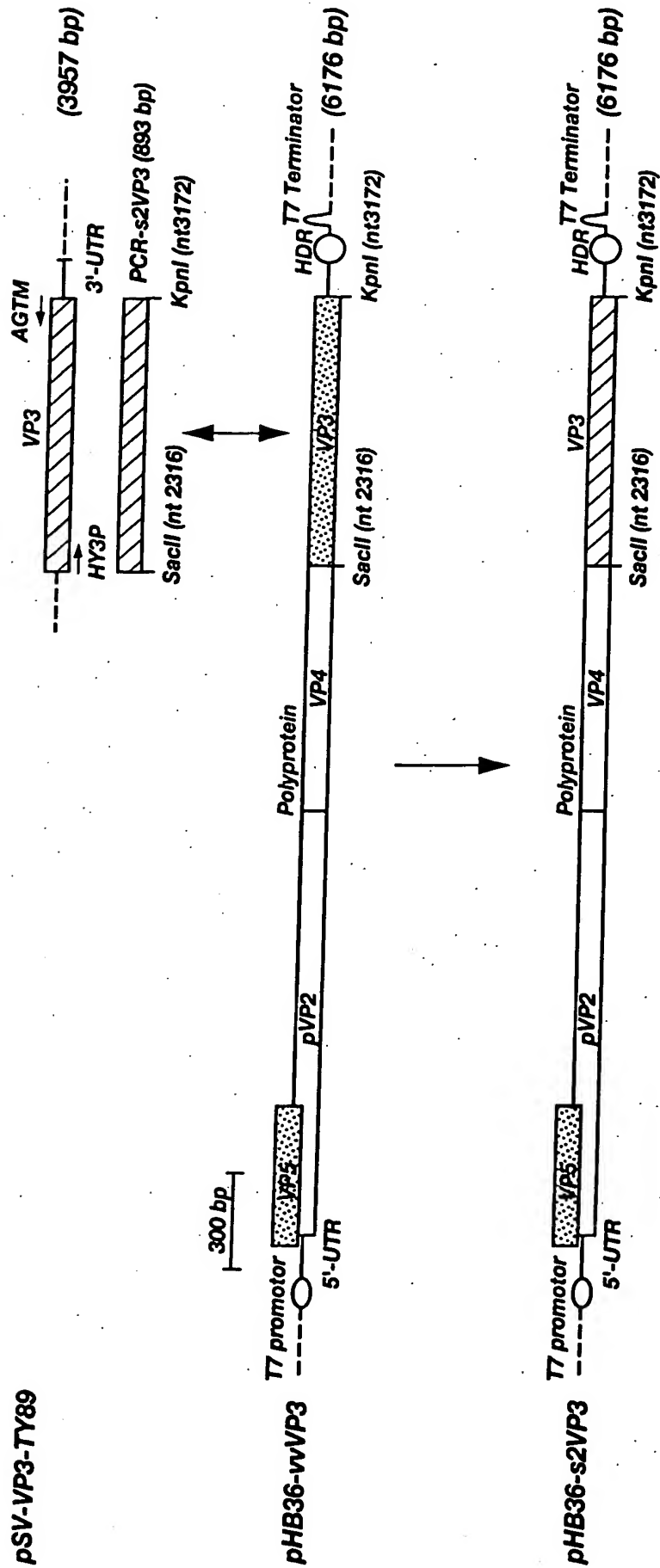


FIG. 5D 8D

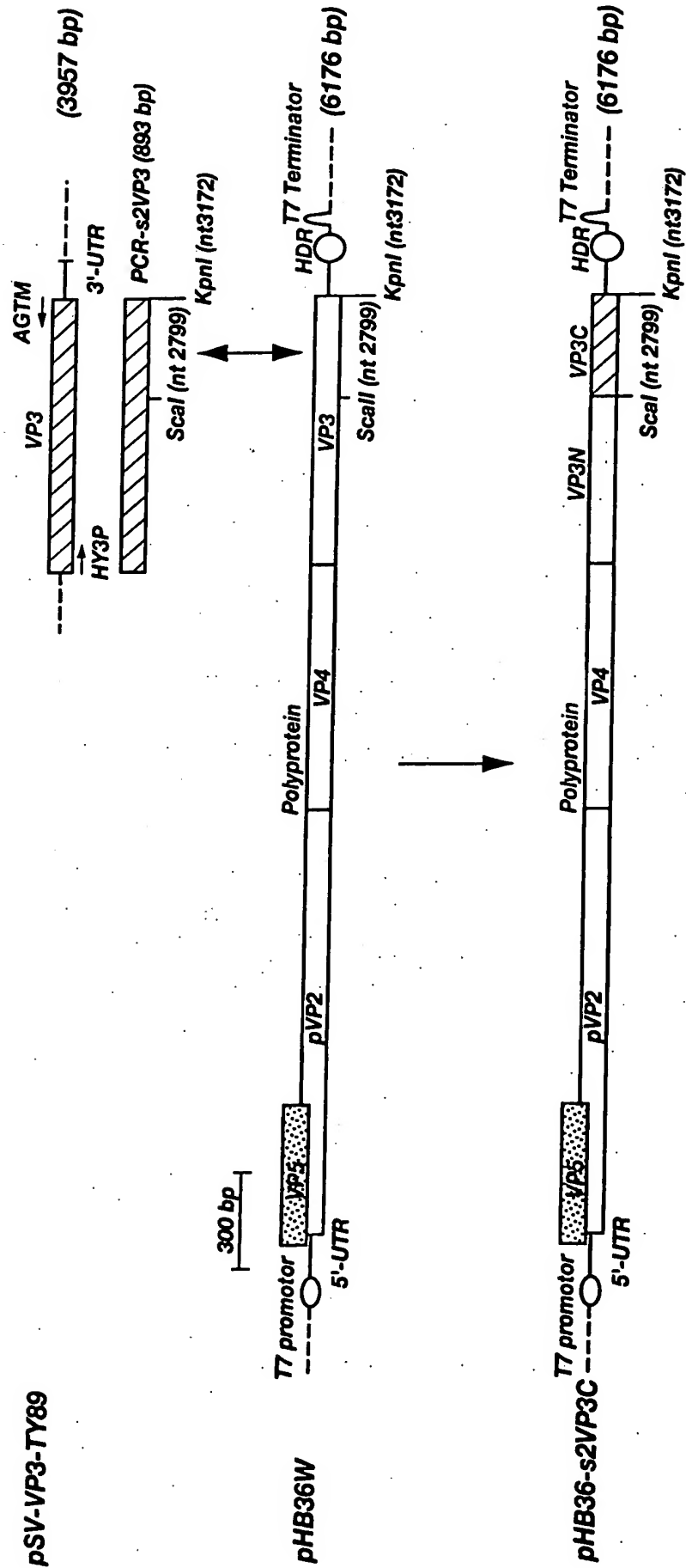


FIG. 5E 8E

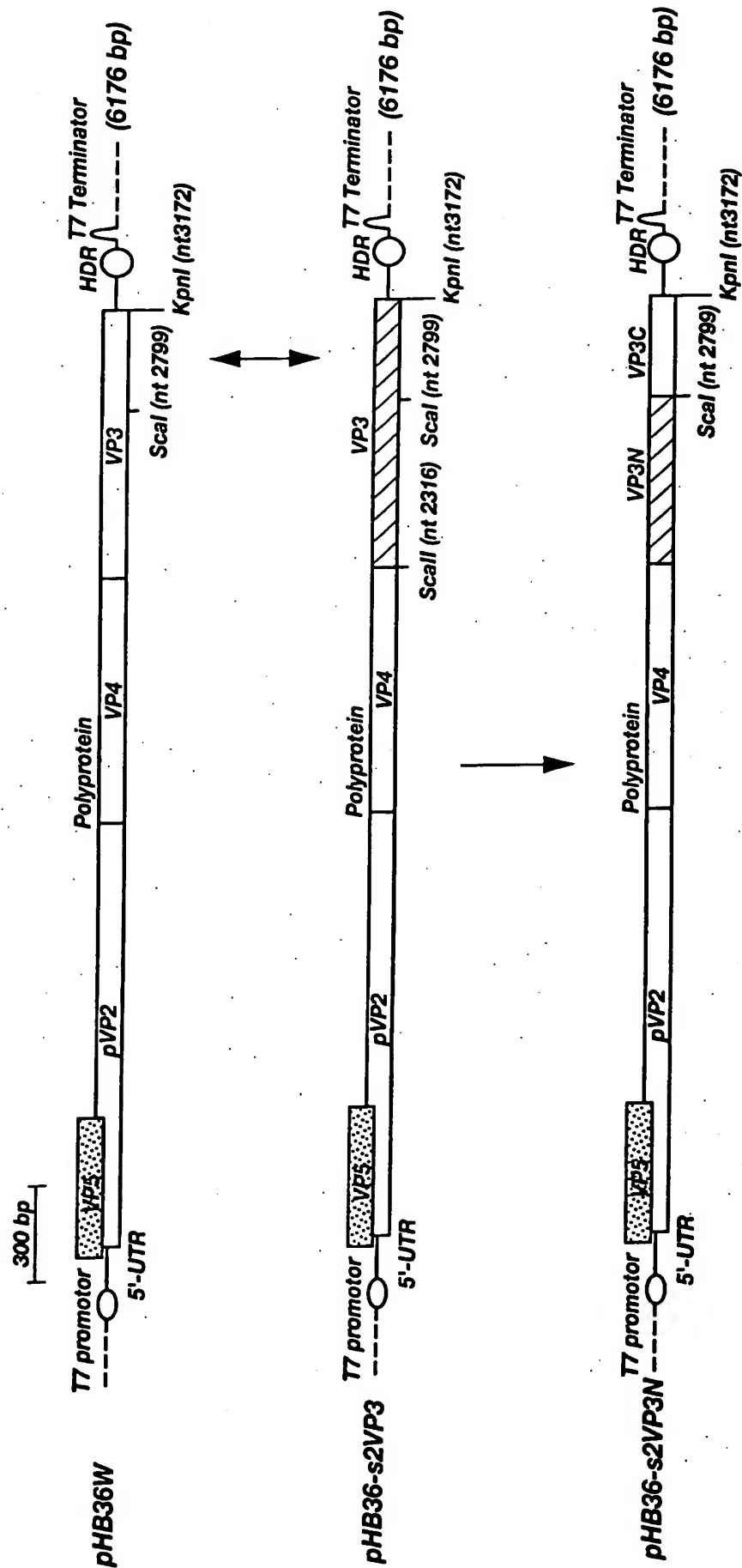


FIG. 3F 8F

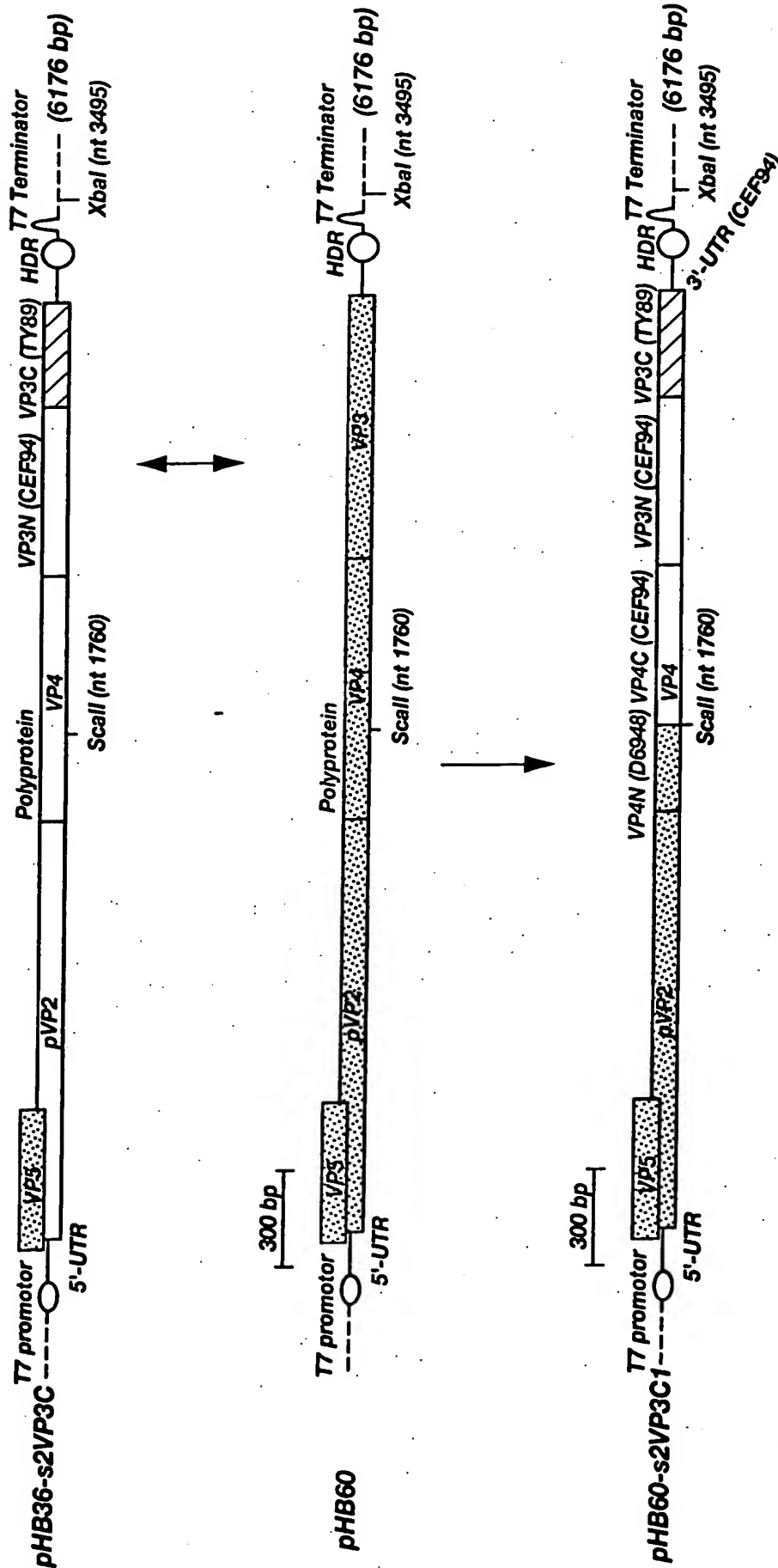


FIG. 5G 86

FIG. 89

VP4 ← → VP3

← SacII

CEF94-PP: 724-FPHNPRD WDRLPYLNLP YLPPNAGROY HLMAAASEFK ETPELESAVR AMEAAANVDP 780
TY89-PP: 724-.....T.....F.....L.....D... ..D..... 780

CEF94-PP: LQSAHSVFM WLEENGIVTD MANFALSDPN AHRMRNELAN APQAGSKSOR AKYGTAGYGV 840
TY89-PP: ..R...Q... ..K..... ..D..... 840

← SacI

CEF94-PP: EARGPTPEEA QREKPTRISK KMETMGIYFA TPEWVALNGH RGPSPGOLKY WQNTREIPDP 900
TY89-PP:D..... ..E. 900

CEF94-PP: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APQAEPPQA FIDEVAKVYE INHGRGPNQE 960
TY89-PP:P.....V..... ..R... ..D..... 960

CEF94-PP: QMKDLLLTAM EMKHRNPRRA LPKPKPKPNA PTQRPGRGLG RWIRTVSDED LE 1012
TY89-PP:P.....S..... ..D..... 1012

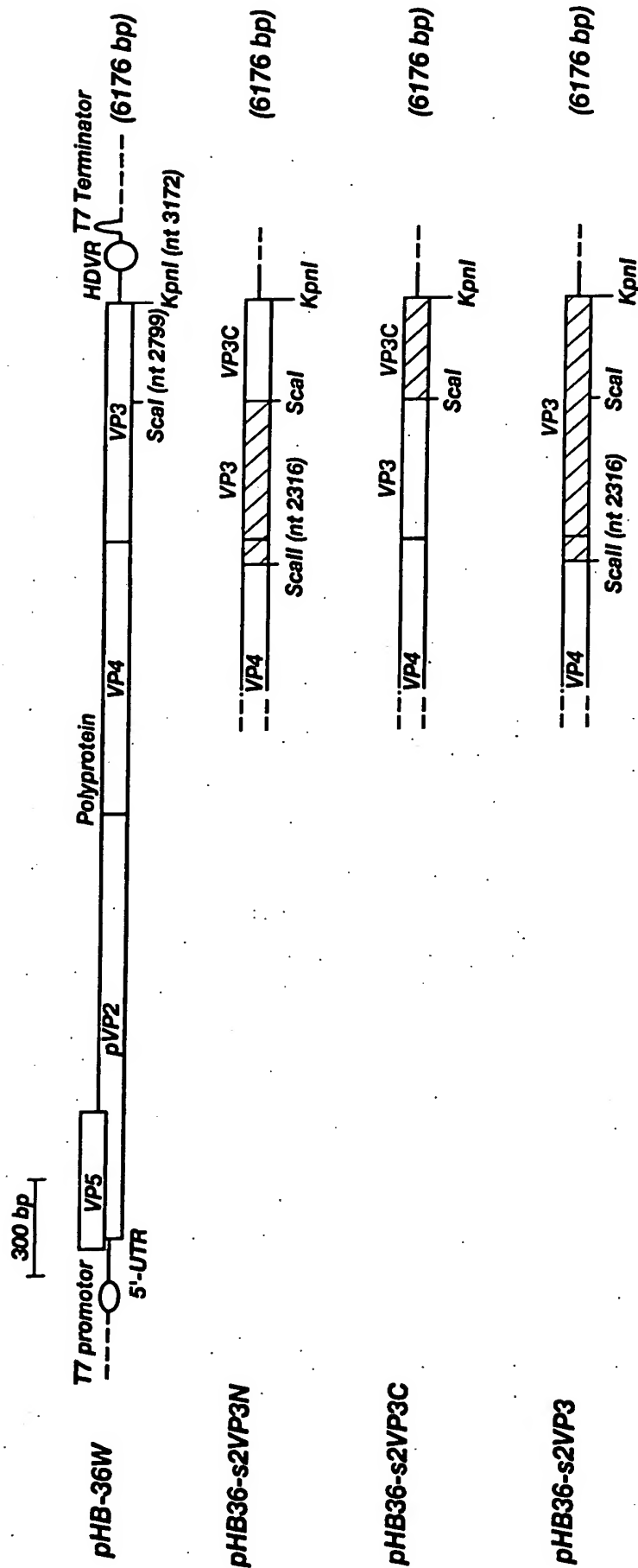


FIG. 10

FIG. 8A 11A

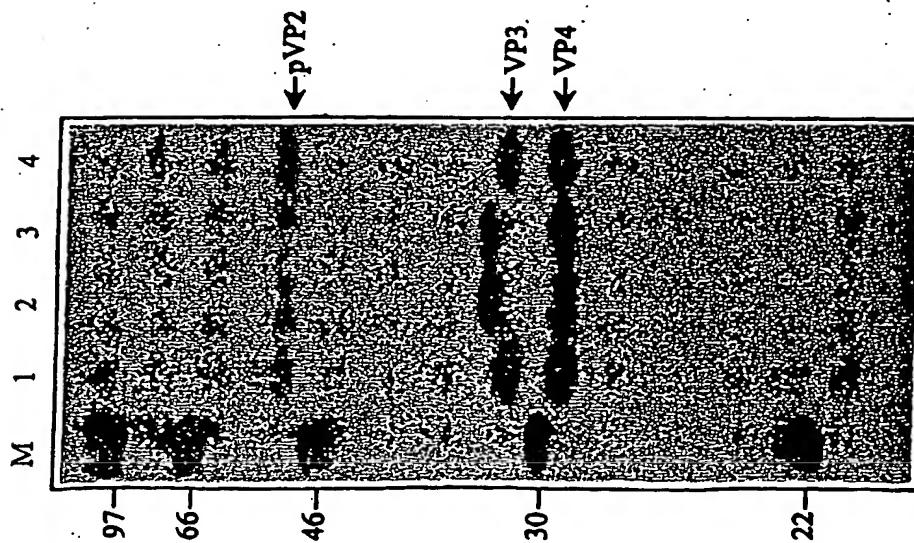


FIG. 8B 11B

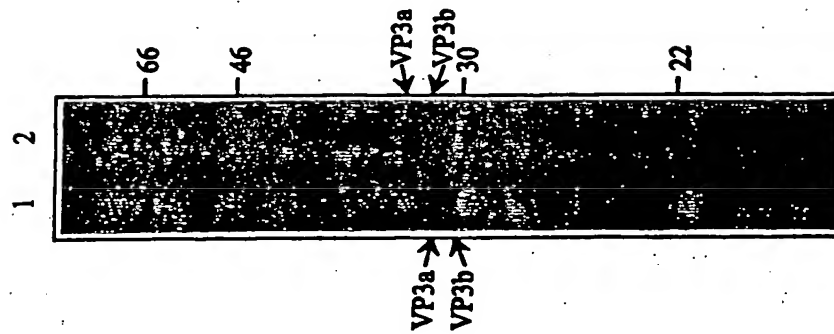
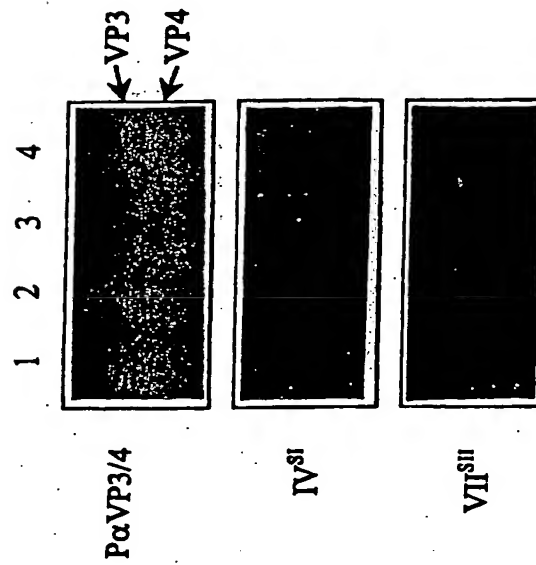


FIG. 8C 11C



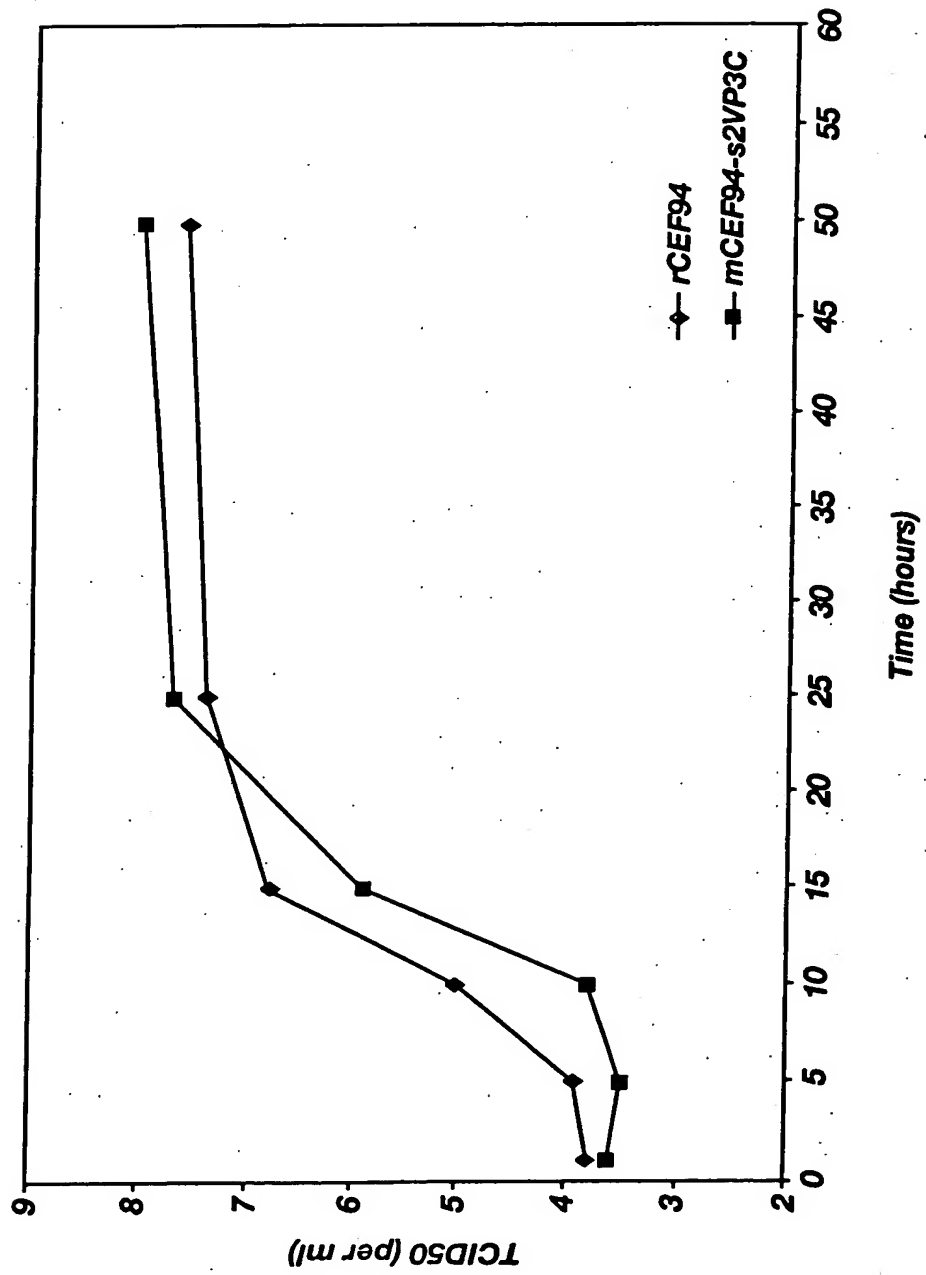
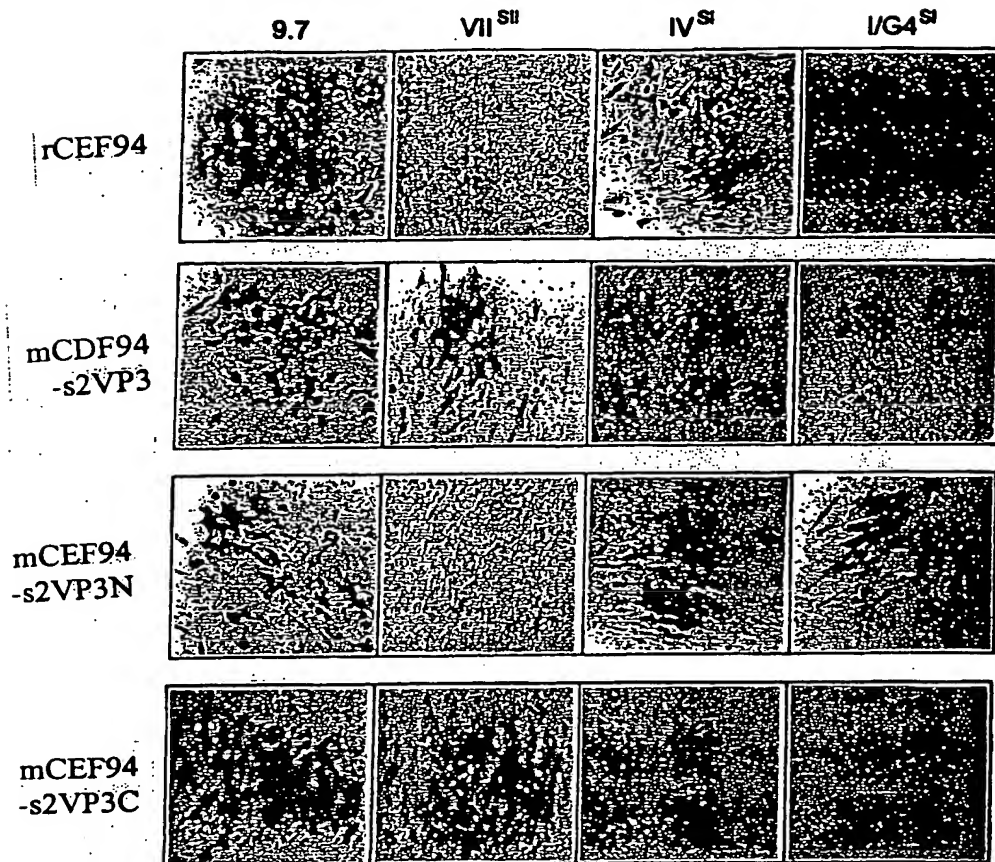


FIG. 12

FIG. ~~10~~ 13



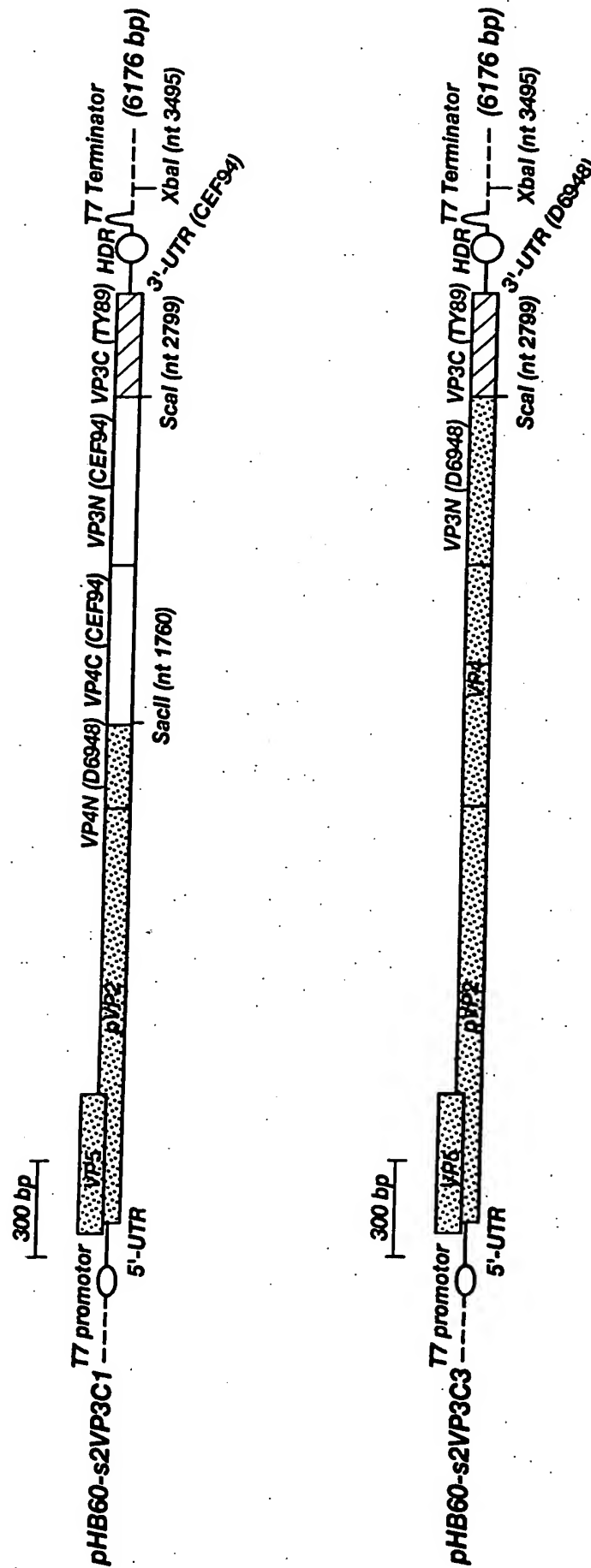


FIG. 14

FIG. 12 15

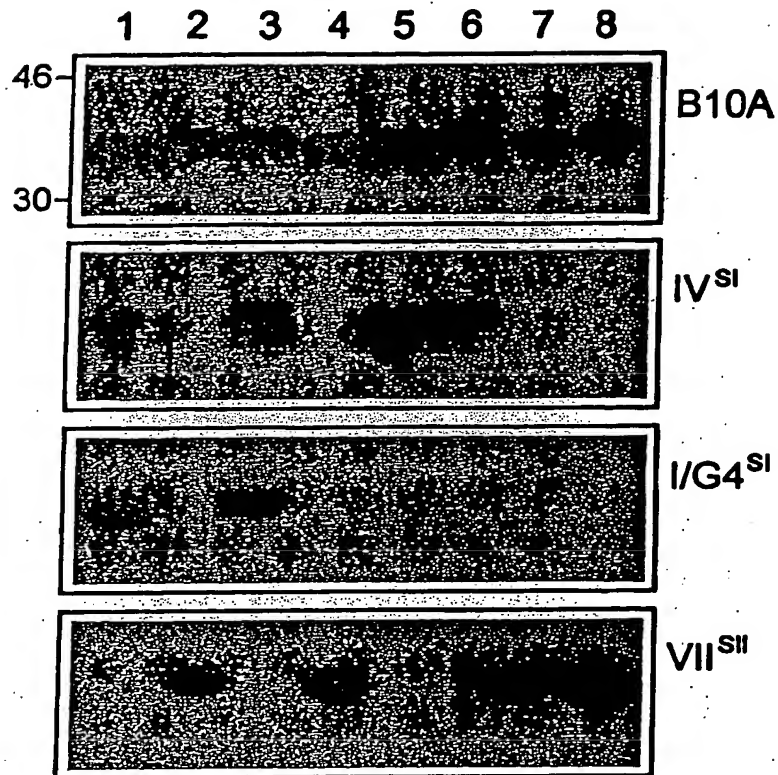
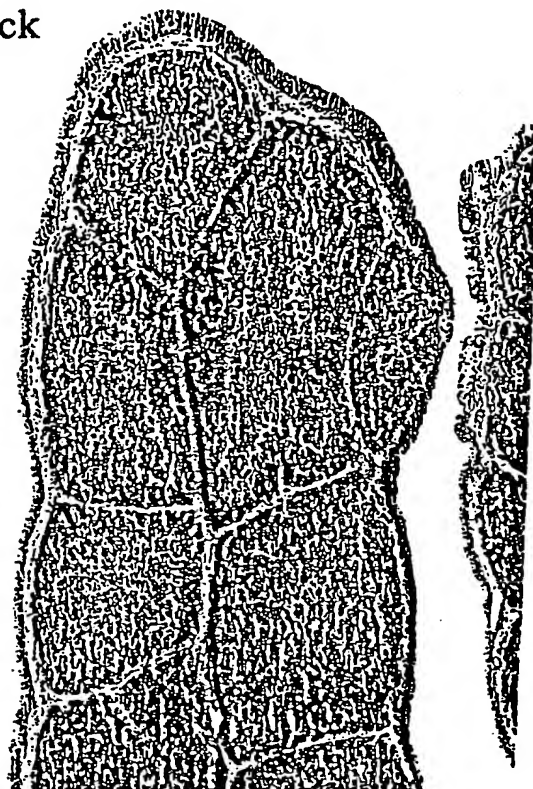


FIG. 13. 16

[illegible]

FIG. 14 17

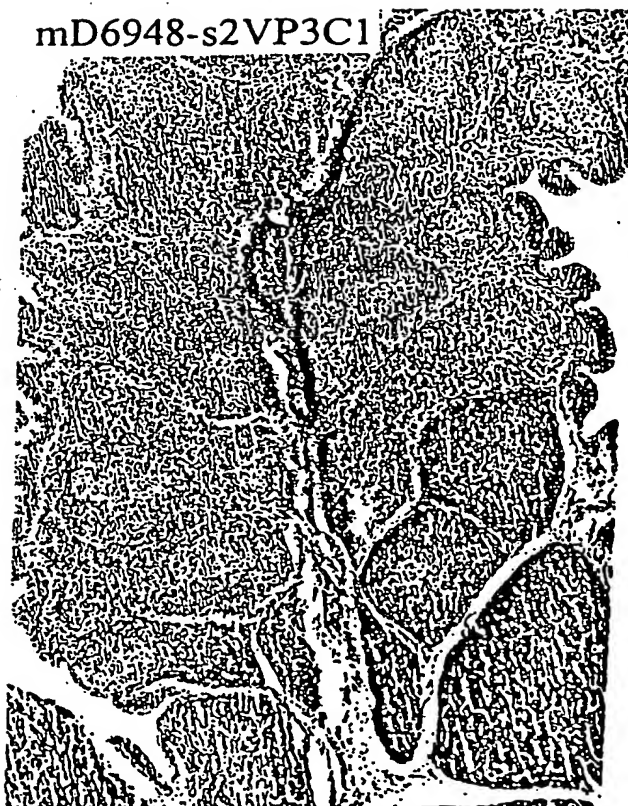
Mock



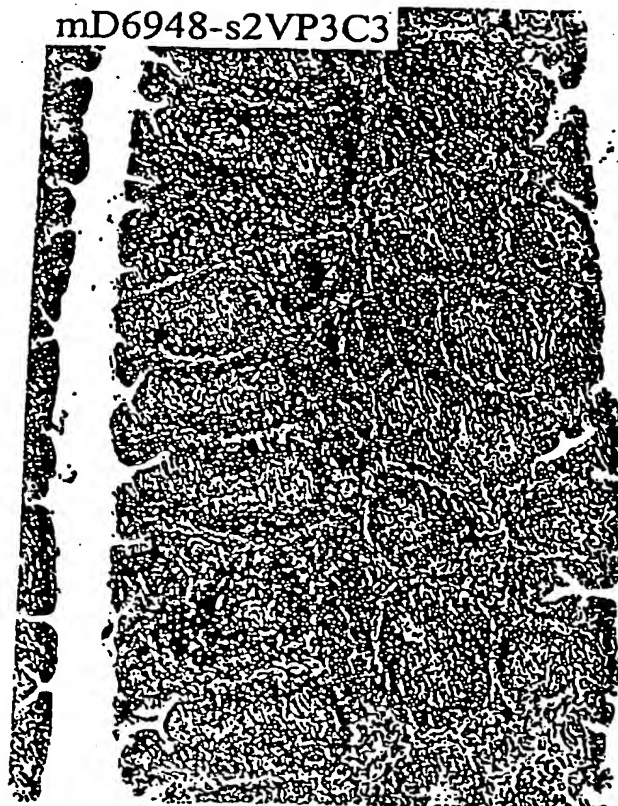
D6948



mD6948-s2VP3C1



mD6948-s2VP3C3



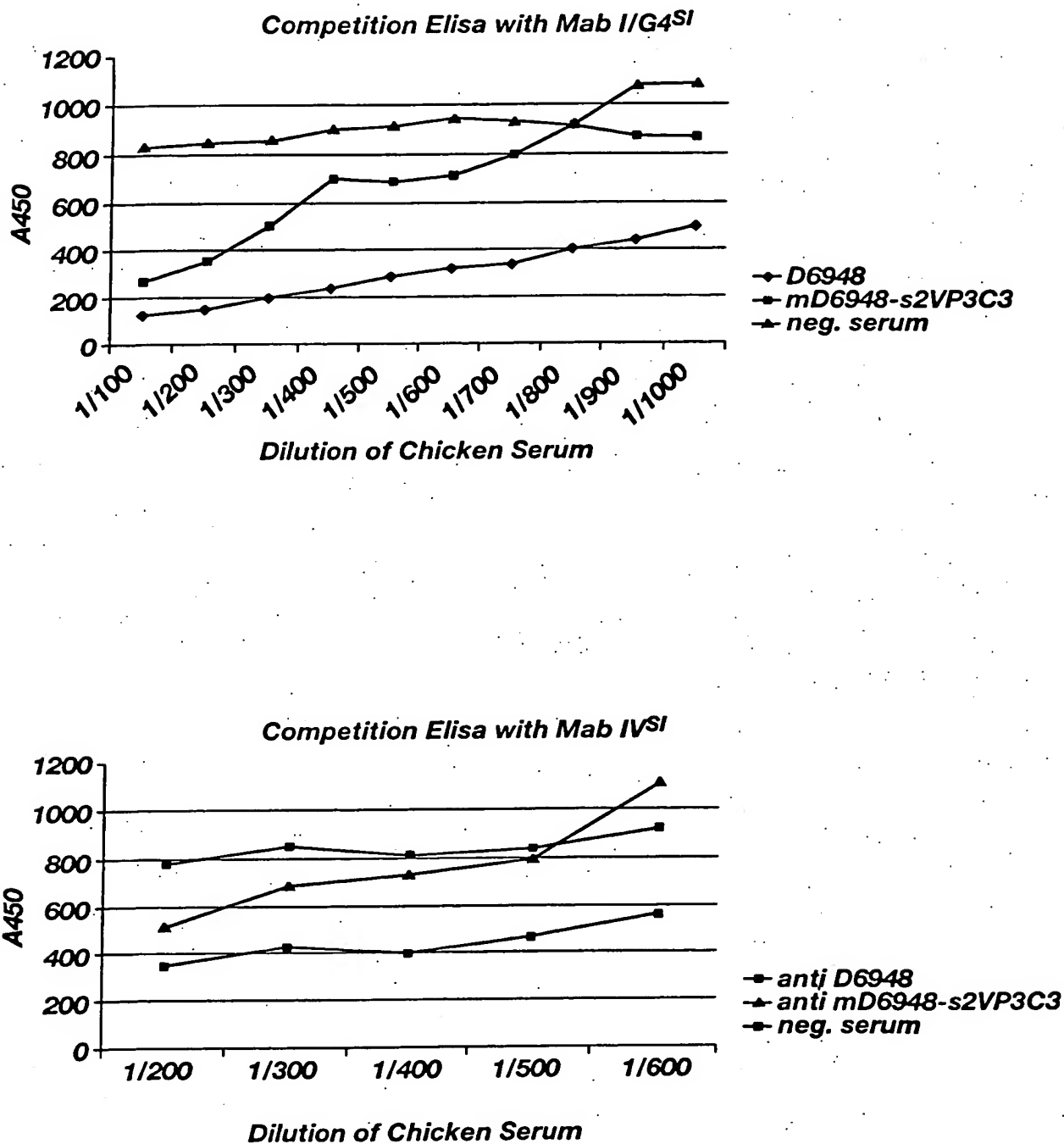


FIG. 15 18

FIG. 19

D6948-VP5: MSLMVSRDQ TNDRSDEPA RSNPTDCSVH TEPDANNRT GVHSGRHPRE AHSQVRDLDL 60
CEF94-VP5: ----K... ..G. 56

D6948-VP5: QFDCGGHRVR ANCLFPWFPW LNCGCSLHTA EQWELQVRSD APDCPEPTGQ LQLLQASESE 120
CEF94-VP5:I... .. 116

D6948-VP5: SHSEVKHTPW WRLCTKWHHK RRDLPKPE 149
CEF94-VP5:S.....R... 145

~~FIG. 10A~~ ~~(Continued)~~ FIG. 20B

D6948-PP:	IKRFPHNPRD	WDRLPYLNLP	YLPPNAGROY	DLAMAASEFK	ETPELESVR	AMEAAANVDP	780
CEF94-PP:	.....	.....	.....	H.....	.....	.....	780
D6948-PP:	LFQSALSVFM	WLEENGIVTD	MANFALSDPN	AHRMRNFLAN	APQAGSKSQR	AKYGTAGYGV	840
CEF94-PP:	.....	.....	.....	.....	.....	.....	840
D6948-PP:	EARGPTPEEA	QREKDRISK	KMETMGIYFA	TPEWVALNGH	RGPSGQLKY	WQNTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APQAEPPQA	FIDEVAKVYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	QMKDLLLTAM	EMKHRNPRA	PPKPKPKPNA	PTQRPGRGLG	RWIRAVSDED	LE	1012
CEF94-PP:	.....	.....	L.....	.....	.....	.....	1012

FIG. 16C 21A

D6948-VP1:	MSDVFNPOA	RSKISAAFGI	KPTAGQDVEE	LLIPKVVVPP	EDPLASPSRL	AKFLRENGYK	60
CEF94-VP1:	I.....	.T.....	.....	.....	.....	.....	60
D6948-VP1:	ILQPRSLPEN	EEYETDQILP	DLAWMRQIEG	AVLKPTLSLP	IGDQEYFPKY	YPTHRPSKEK	120
CEF94-VP1:	V.....	.....	.....	.....	.....	.....	120
D6948-VP1:	PNAYPPDIAL	LQMIYLFLO	VPEATDNLKD	EVTLLTONIR	DKAYSGTYM	GQATRLVAMK	180
CEF94-VP1:	.....	.....	....NEG.	.....	.....	.....	180
D6948-VP1:	EVATGRNPNK	DPLKLGTYFE	SIAQLLDITL	PVGPPGEDDK	PWVPLTRVPS	RMLVLTGDVD	240
CEF94-VP1:	.....	.....	.....	.....	.....	.....	240
D6948-VP1:	GEFEVEDYLP	KINKSSSGL	PYVGRTKGET	IGEMIAISNQ	FLRELSALLK	QGAGTKGSNK	300
CEF94-VP1:	D.....	.....	.....	.....	.....T...	.....	300
D6948-VP1:	KKLLSMLSDY	WYLSGCLLFP	KAERYDKSTW	LTKTRNIWSA	PSPTMLMISM	ITWPVMSNSP	360
CEF94-VP1:	.....	.....	.....	.....	.....	.....	360
D6948-VP1:	NNVLNIEGCP	SLYKFNPFGR	GLNRIVEWIM	APDEPKALVY	ADNIYIVHSN	TWYSIDLEKG	420
CEF94-VP1:	.....	.....	.....L..E.....	.....	.....	.....	420
D6948-VP1:	EANCTRQHMQ	AAMYIILTRG	WSDNGDPMFN	QTWATFAMNI	APALVVDSSC	LIMNLQIKTY	480
CEF94-VP1:	.....	.....	.....	.....	.....	.....	480
D6948-VP1:	GQSGNAATF	INNHLSTLV	LDOWNLMKQP	SPDSEEFKSI	EDKLGINFKI	ERSIDDIRGK	540
CEF94-VP1:	.....	.....	.....R..	R.....	.....	.....	540
D6948-VP1:	LRQLVPLAQP	GYLSSGVEPE	QPSPTVELDL	LGSATYSKD	LGIYVPVLDK	ERLFCSAAYP	600
CEF94-VP1:	.....L....	.....S.....	.....	.....	.....	.....	600
D6948-VP1:	KGVENKSLKS	KVGIEQAYKV	VRYEALRLVG	GWNYPLLNKA	CKNNASAARR	HLEAKGFPLD	660
CEF94-VP1:	.....	.....	.....	.....G....	.....	.....	660
D6948-VP1:	EFLAEWSELS	EFGEAFEGFN	IKLTVTPESL	AELNRPVPPK	PPNVNRPVNT	GGLKAVSNAL	720
CEF94-VP1:	.....	.....S....	....K....	.....	.....	.....	720

~~FIG. 16C~~ ~~Continued~~ FIG. 21B

D6948-VP1:	KTGRYRNEAG	LSGLVLLATA	RSRLQDAVKA	KAEAEKHLHKS	KPDDPDADWF	ERSETLSDLL	780
CEF94-VP1:	.....	.....	.....	.....	.....	.....	780
D6948-VP1:	EKADIASKVA	HSALVETSDA	LEAVQSTSVY	TPKYPEVKNP	QTASNPPVGL	HLPKRRATGV	840
CEF94-VP1:	.....	.....	.....	.....	.....	.....	840
D6948-VP1:	QAALLGAGTS	RPMGMEAPTR	SKNAVKNMAKR	RQRQESRQ-	-		879
CEF94-VP1:	.....	.....	.....	.....	.....Q	P	881

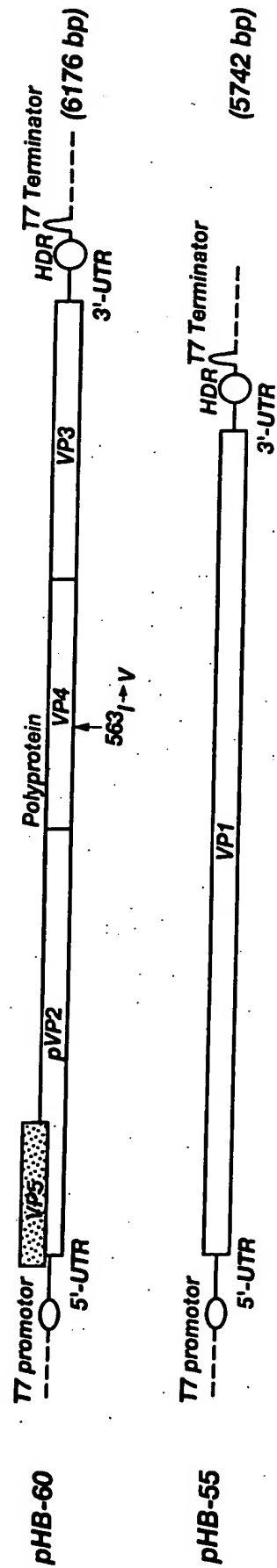
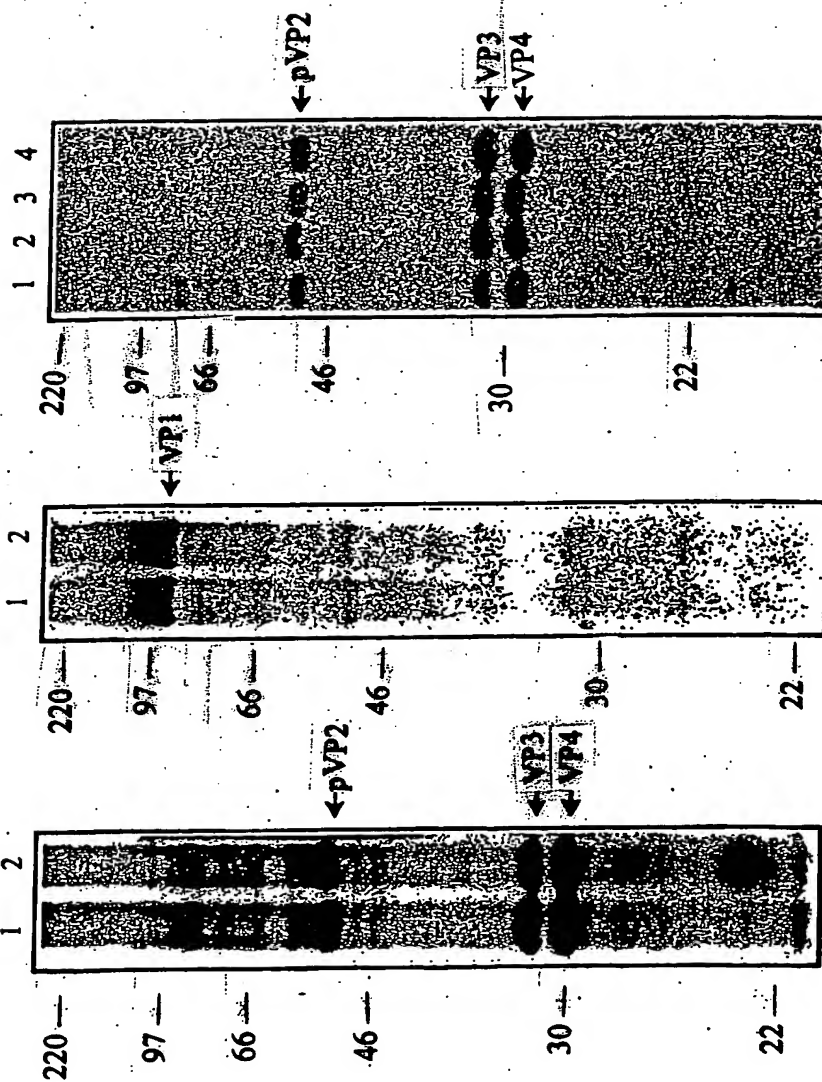
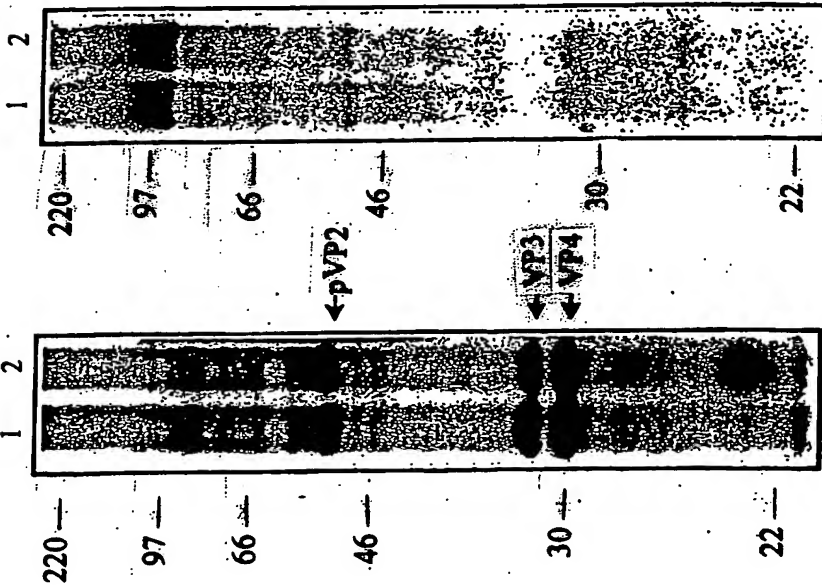


FIG. 17 22

23C
FIG. 18C



23B
FIG. 18B



23A
FIG. 18A

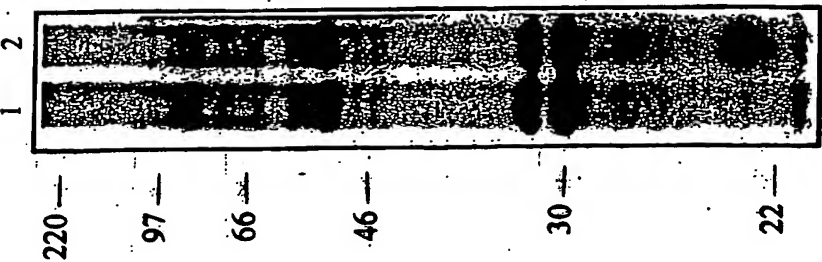
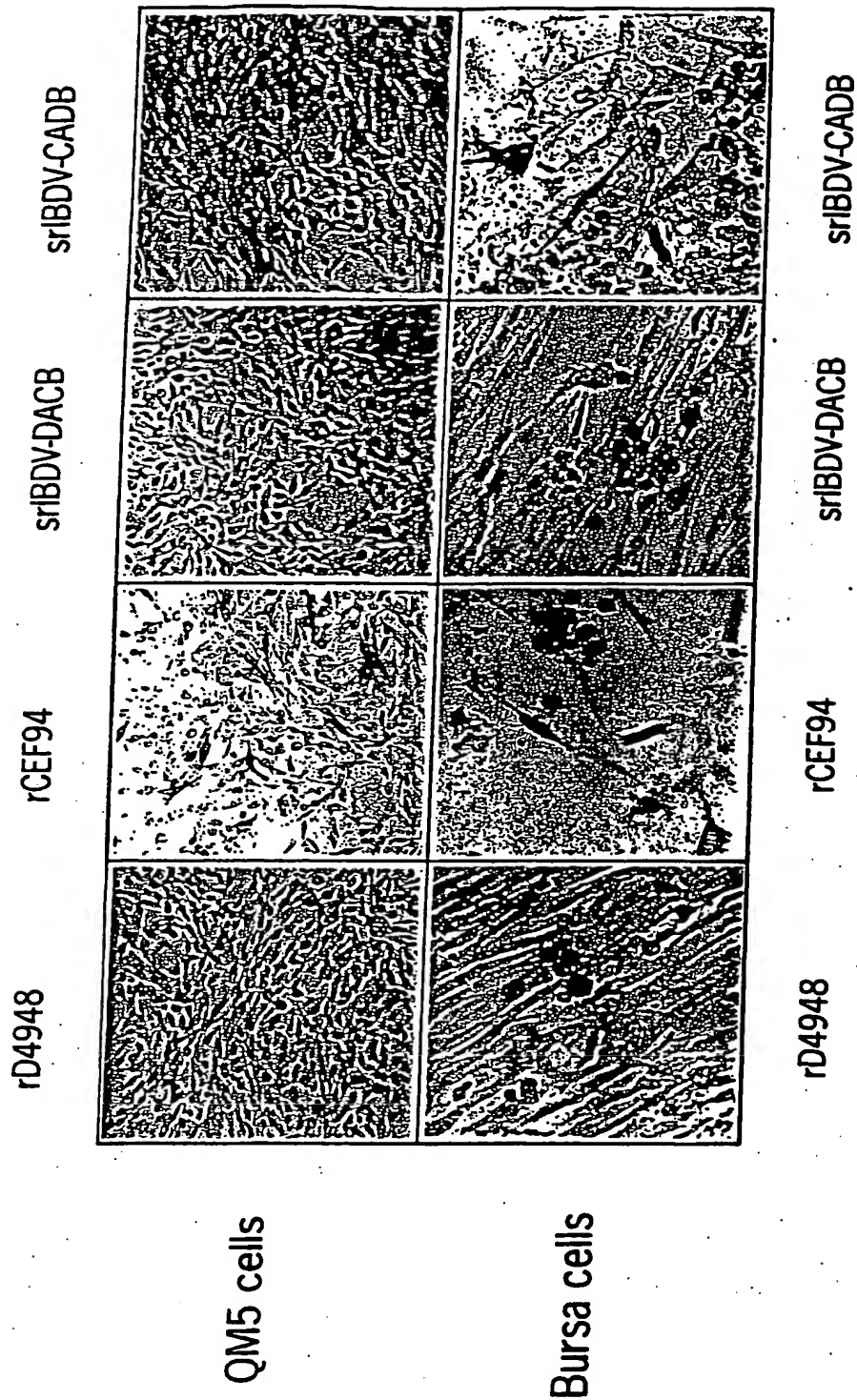


FIG. 19 24



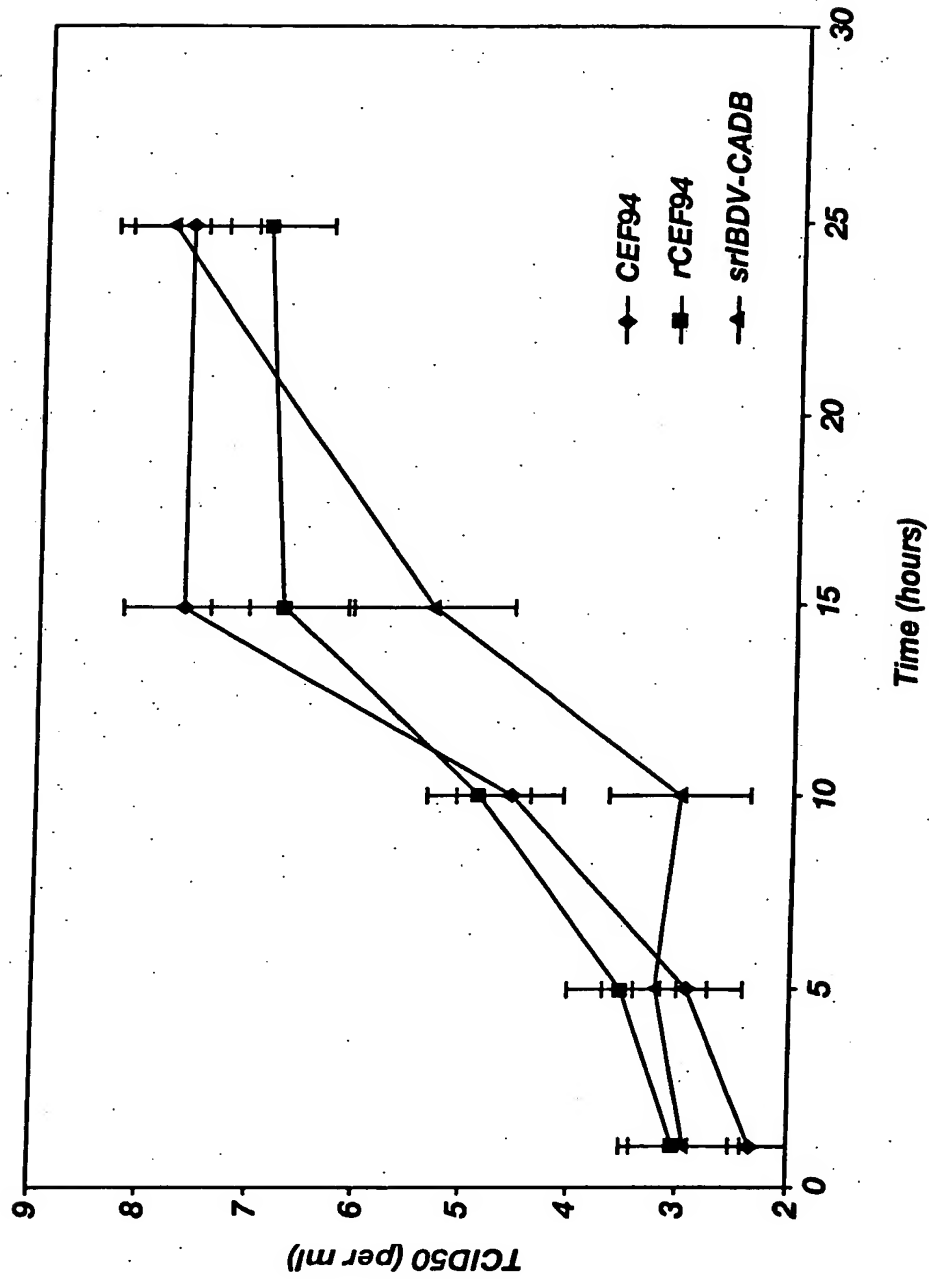


FIG. 20 25

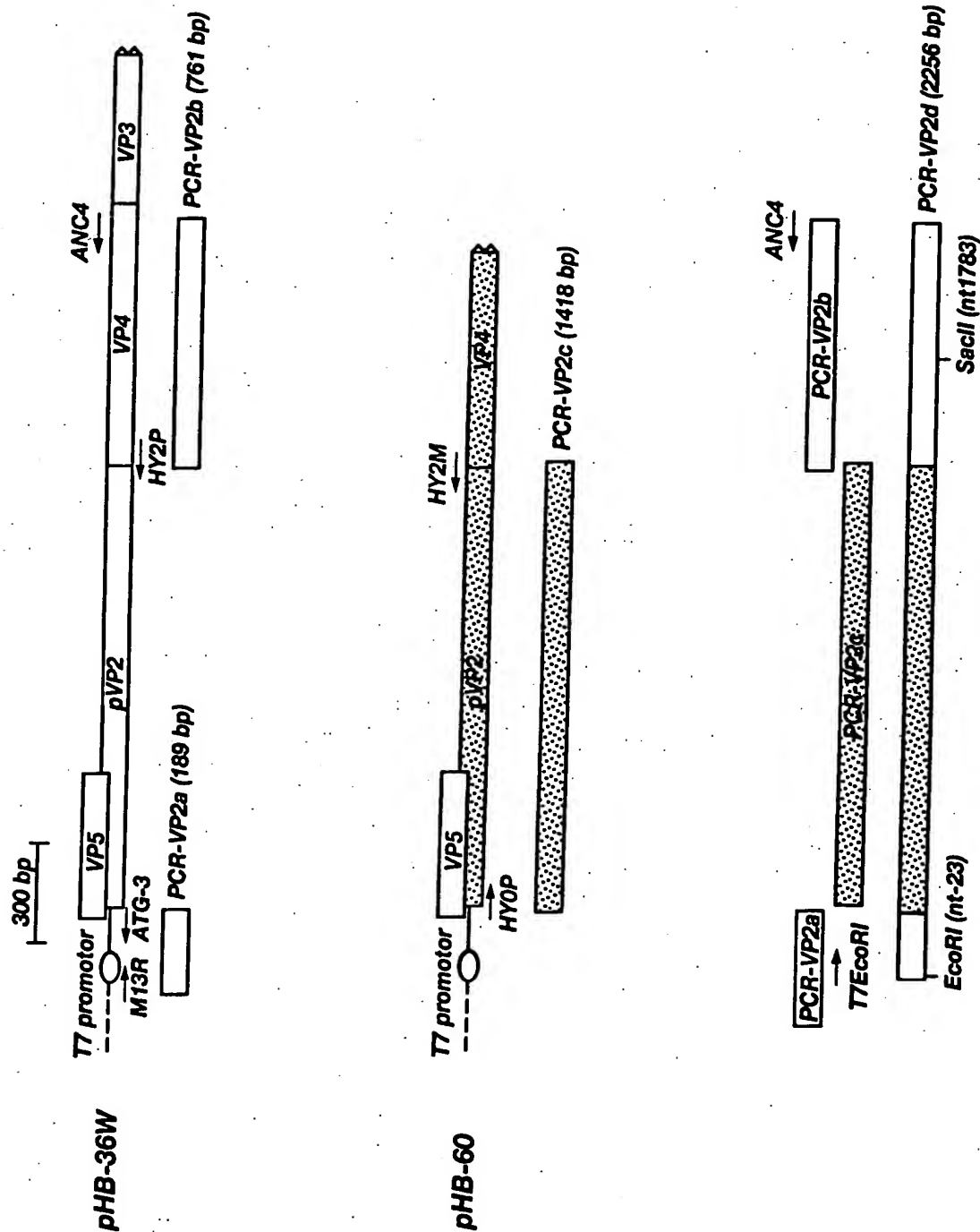
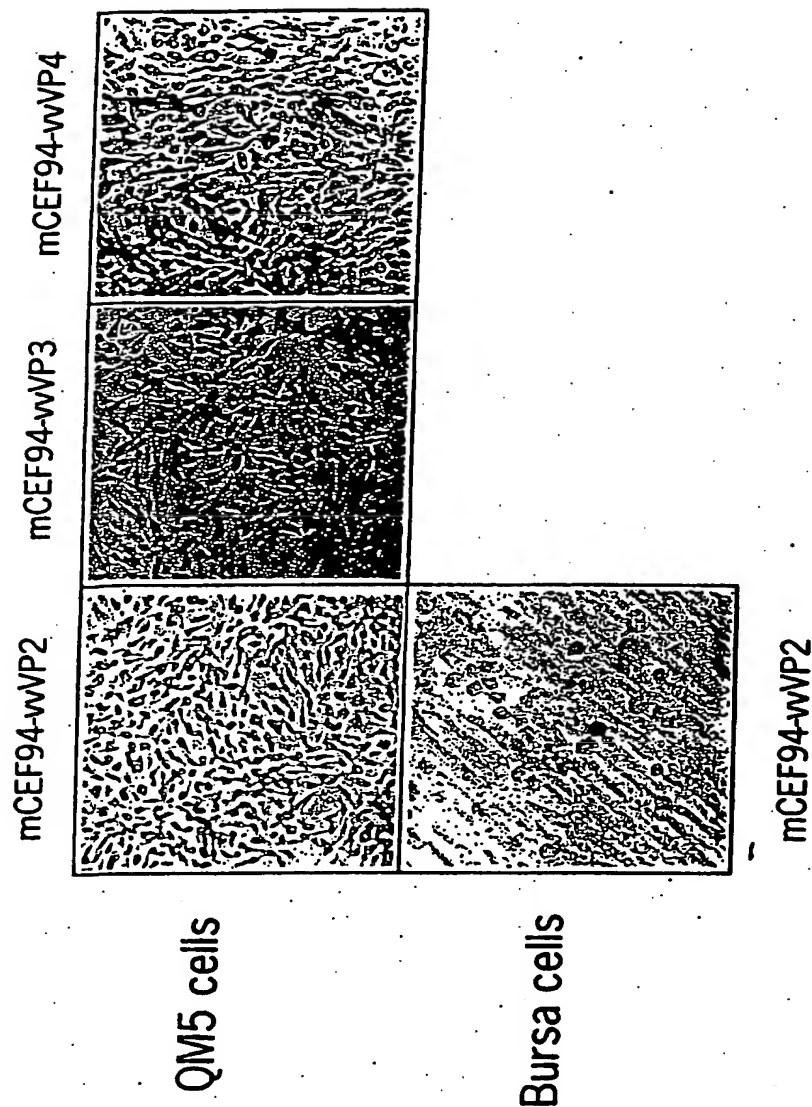


FIG. 26

FIG. 22



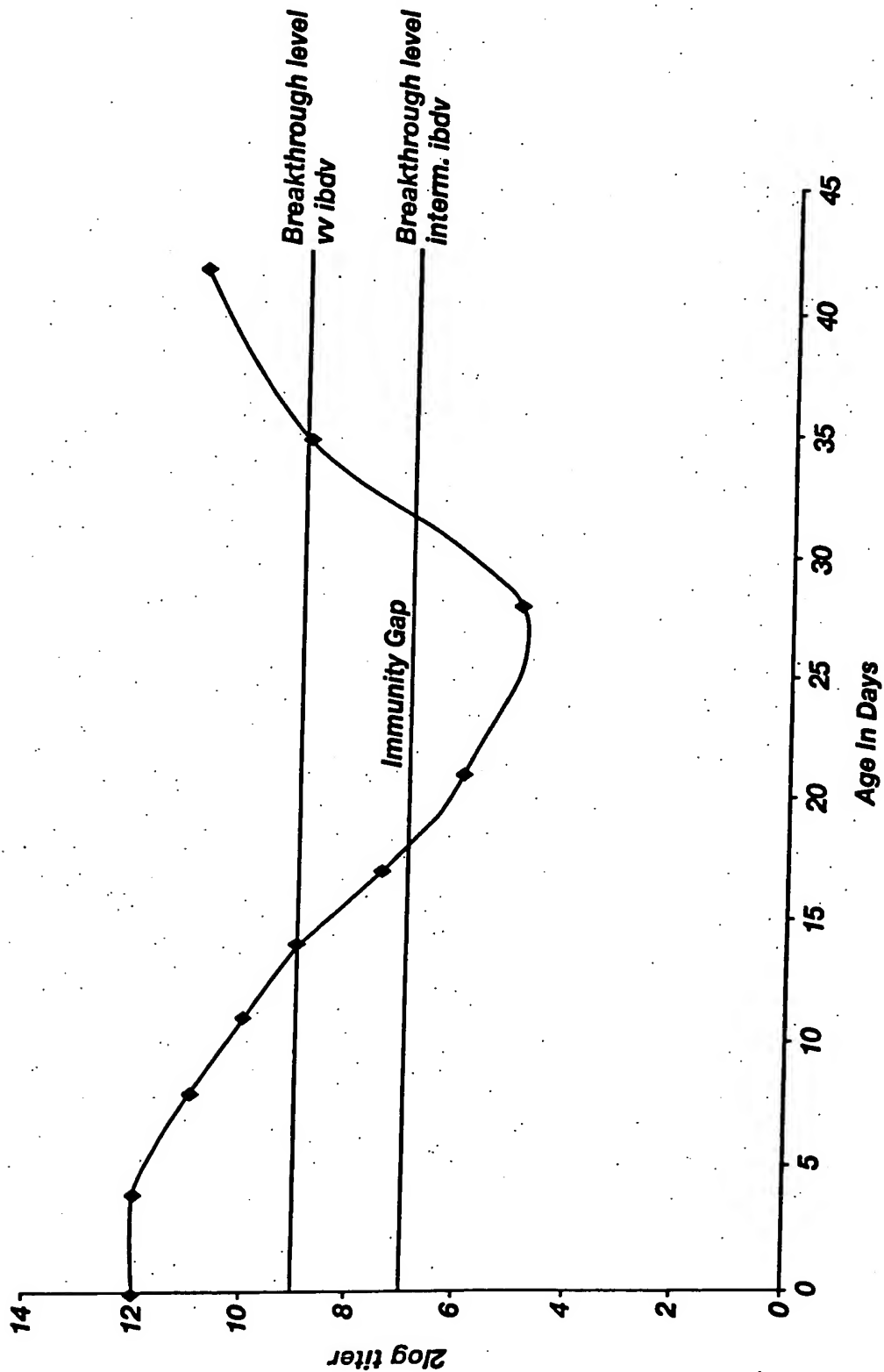


FIG. 1

CONSENSUS:	ggatacga	ggtctgacc	cgggggagtc	acccggggac	aggcygwcaa	ggyccttg	60
CEF94-A:	.....	.....	.....	.....	...C.t...	..t.....	60
D6948-A:	.....	.....	.....	.....	...t.a...	..C.....	60
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	cagatggaa	ctcctccttc	tacaaygcta	tcattgatgg	tyagtagaga	tcagacaaac	120
CEF94-A:	.....	.....	...C...	.....	..C.....	.....	120
D6948-A:	.....	.....	...t...	.....	..t.....	.....	120
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	gatcgacag	atgacraacc	tgcaagatca	aaccaacag	attgttccgt	tcatacggag	180
CEF94-A:	.....	...a...	.....	.....	.....	.....	180
D6948-A:	.....	...g...	.....	.....	.....	.....	180
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ccttctgatg	ccaacaaccg	gaccggcgtc	cattccggac	gacaccctrg	agaagcacac	240
CEF94-A:	.....	.....	.....	.....	.....g.	.....	240
D6948-A:	.....	.....	.....	.....	.....a.	.....	240
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	tctcaggtca	gagacctcga	cctacaattt	gactgtgggg	gacacagggt	cagggccta	300
CEF94-A:	.....	.....	.....	.....	.....	.....	300
D6948-A:	.....	.....	.....	.....	.....	.....	300
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	tgtctttttc	cctggwttcc	ctggctcaat	tgtgggtgct	cactacacac	tgcagagcaa	360
CEF94-A:	.....	...a...	.....	.....	.....	.....	360
D6948-A:	.....	...t...	.....	.....	.....	.....	360
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	tgggaactac	aagttcgatc	agatgctcct	gactgcccag	aacctaccgg	ccagyatacaa	420
CEF94-A:	.....	.....	.....	.....	.....t...	.....	420
D6948-A:	.....	.....	.....	.....	.....C.	.....	420
TY89-A:	-----	-----	-----	-----	-----	-----	

CONSENSUS:	cacaagcctc	agcrttygggg	gagarcctgt	gtttcaaca	agcgctccamg	gccttrtact	900
CEF94-A:	.....	..g.t...	....g....	.....	.....C.	.....g....	900
D6948-A:	.....	..a.c...	....a....	.....	.....a.	.....a....	900
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	gggygcyacc	atctacctya	taggctttga	tgggacwgcg	gtaatcacca	grgctgtggc	960
CEF94-A:	..C.C..	.....C.	.....	.....a..	.....	..g.....	960
D6948-A:	..t.t...	.....t.	.....	.....t..	.....	..a.....	960
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	cgcaracaat	gggctracgr	ccggcacysga	caacctttwg	ccattcaatm	ttgtgattcc	1020
CEF94-A:	....a....	....g..a	.....C..	.....t..	.....a	.....	1020
D6948-A:	....g....	....a..g	.....t..	.....a..	.....C	.....	1020
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	aacmarcgag	ataaccaggc	caatcacatc	catcaaaactg	gagatagtga	cctccaaaag	1080
CEF94-A:	..a.a....	.....	.....	.....	.....	.....	1080
D6948-A:	..c.g....	.....	.....	.....	.....	.....	1080
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	tggtggtcag	gcrgggggac	agatgtcrtg	gtcrgcaagw	gggagcctag	cagtgacgat	1140
CEF94-A:	.....	..a.....	.....g..	..g.....a	.....	.....	1140
D6948-A:	.....	..g.....	.....a..	..a.....t	.....	.....	1140
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ccaygggtggc	aactatccag	gggcccctccg	tcccgtcacr	ctagtrgcct	acgaaagagt	1200
CEF94-A:	..t.....	.....	.....	.....g	.....g....	.....	1200
D6948-A:	..c.....	.....	.....	.....a	.....a....	.....	1200
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ggcaacagga	tcygtcgtta	cggtcgcygg	ggtgagcaac	ttcgagctga	tcccaaattcc	1260
CEF94-A:	.....	..c.....	.....t..	.....	.....	.....	1260
D6948-A:	.....	..t.....	.....c..	.....	.....	.....	1260
TY89-A:	-----	-----	-----	-----	-----	-----	

REPLACEMENT SHEET

FIG. 2C

CONSENSUS:	tgaactagca	agaacctgg	tyacagaata	cggccgattt	gaccaggagg	ccatgaacta	1320
CEF94-A:	.....	.....	.t.....	.....	.....	.....	1320
D6948-A:	.....	.....	.C.....	.....	.....	.....	1320
TY89-A:	-----	-----	-----	-----	-----	-----	

CONSENSUS: cacaaaaattg atactgagtg agagggacg tcttggcatc agaccgtmt ggccaacaag 1380
 CEF94-A:C. 1380
 D6948-A:a. 1380
 TY89-A: ----- 1380

	1440	1440	1440
CONSENSUS:	ggagta	gacttt	ggagtg
CEF94-A:	.....	.....	.....
D6948-A:	.....	.....	.....
TY89-A:	.....	.....	.....

CONSENSUS:	gattgcagga	gcattyyggt	tcaaagacat	aatccggggc	mtaaggagga	tagctgtgcc	1500
CEF94-A:	.....	.....C.....	.....	.....	a.....	.....	1500
D6948-A:	.....	.....t.....	.....	.....	C.....	.....	1500
TY89-A:	-----	-----	-----	-----	-----	-----	1500

CONSENSUS:	ggtggtctctcy	acaytgttcc	caccyggccgc	tcccctagcc	catgcaattg	gggaaggtgt	1560
CEF94-A:	.....C	..t.....	.....t.....	.....	.....	.....	1560
D6948-A:	.....t	..C.....	.....C.....	.....	.....	.....	1560
TY89-A:	-----	-----	-----	-----	-----	-----	1560

CONSENSUS:	agactacctg	ctgggcgatg	aggcacaggc	tgcttcagga	actgctcgag	ccgcgtcagg	1620
CEF94-A:	.....	.....	.....	.....	.....	.....	1620
D6948-A:	.....	.....	.....	.....	.....	.....	1620
TY89-A:	-----	-----	-----	-----	-----	-----	1620

CONSENSUS:	aaaagcaaga	gctgcctcag	gccgcataag	gcagctract	ctgcgcgcg	acaaggggta	1680
CEF94-A:	.....	.....	.....	.....g..	.....	.....	1680
D6948-A:	.....	.....	.....	.....a..	.....	.....	1680
TY89-A:	-----	-----	-----	-----	-----	-----	

FIG. 2D

CONSENSUS:	cgaggtagtc	gcgaatctrt	tycaggtgcc	ccagaatccy	gtagtcgacg	ggattctygc	1740
CEF94-A:	.....	.....a.	.C.....	.....C	.....	.....t..	1740
D6948-A:	.....	.....g.	t.....	.....t	.....	.....C..	1740
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ttcacctggg	rtactccgcg	gygcacacaa	cctcgactgc	gtgttragag	aggggtgccac	1800
CEF94-A:	.....	g.....	t.....	.....	.....a....	.....	1800
D6948-A:	.....	a.....	.C.....	.....	.....g....	.....	1800
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	gctattccct	gtggttyatya	cgacagtgga	agaygccatg	acacccaaag	caytgaacag	1860
CEF94-A:	.....	.....t..t.	.....	...C.....	.....	..t.....	1860
D6948-A:	.....	.....C..C.	.....	..t.....	.....	..C.....	1860
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	caaaatgttt	gctgtcattg	aagcggtgcg	agaagayctc	caacctccwt	ctcaaagagg	1920
CEF94-A:	.....	.....	.....	.....C.....	.....t..	.....	1920
D6948-A:	.....	.....	.....	.....t..	.....a.	.....	1920
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	atccttcata	cgaactctct	cyggacayag	agtctatgga	tatgctccag	atgggggtact	1980
CEF94-A:	.....	.....	t.....C.	.....	.....	.....	1980
D6948-A:	.....	.....	.C.....t.	.....	.....	.....	1980
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	tccactggag	actgggagag	aytacaccgt	kgtcaccaata	gatgatgtct	gggacgacag	2040
CEF94-A:	.....	.....	.C.....	t.....	.....	.....	2040
D6948-A:	.....	.....	t.....	g.....	.....	.....	2040
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	cattatgctg	tccaaagayc	ccatacctcc	tattgtggga	aacagyggaa	ayctagccat	2100
CEF94-A:	.....	.....t.	.....	.....	.....t....	..t.....	2100
D6948-A:	.....	.....C.	.....	.....	.....C....	..C.....	2100
TY89-A:	-----	-----	-----	-----	-----	-----	

FIG. 2E

CONSENSUS: agcttacatg gatgtgttc gacccaaagt cccmatccat gtggcyatga cggagccct 2160
CEF94-A:a.....t..... 2160
D6948-A:C.....C..... 2160
TY89-A: 2160

CONSENSUS: caaygcytrt ggcgagattg agaamgtrag ctttagaagc accaagctcg ccaactgcaca 2220
CEF94-A: ...t..t.g.a.a. 2220
D6948-A: ...C..C.a.C.g. 2220
TY89-A: 2220

CONSENSUS: ccgacttggc ctyaagtgg ctggtcccgg wgcattygay gtraacaccg ggyccaactg 2280
CEF94-A:t.....a.....C.t. .a.....C..... 2280
D6948-A:C.....t.....t..c..g.....t..... 2280
TY89-A: 2280

CONSENSUS: ggcragtgty atcaaagctt tycctcaciaa tccmcgmgaac tgggacaggy tmccytacct 2340
CEF94-A: ...a.....CC.....a.C... ..a.C... ..C.C..... 2340
D6948-A: ...g.....tt.....a.C... ..a.C... ..C.C..... 2340
TY89-A: 44

CONSENSUS: caacctwccm tayctyccac cmamwgcwgg acgycagtwc sayctkgccm tggchghtc 2400
CEF94-A:a..a .C..t... .C.at..a.. ..C...a. C.C..t...at..a.. 2400
D6948-A:t..a .C..t... .C.at..a.. ..C...a. g.C..g...aC..t.. 2400
TY89-A:t..C .t..C... .a.ca..t.. ..t...t. C.t..g...Ca..C.. 104

CONSENSUS: mgagttcaaa gagaccccmg aactcgarr ygcygtsmgw gmatggang cwgcwgcmaa 2460
CEF94-A: a.....C.gag t..C..ca.a .a.....a. a.a..C.. 2460
D6948-A: a.....C.gag C..C..ca.a .C.....a. a.a..C.. 2460
TY89-A: C.....a.aga C..t..gc.t .a.....C. .t..t..a.. 164

CONSENSUS: cgtsgaccca ytrttccrmt cwgcdctcmr bgtsttcctg tggytggaag araaygggat 2520
CEF94-A: ...g.....C.a.....aa. t..a...ag t..g.....C......g..t.... 2520
D6948-A: ...g.....C.g.....aa. t..g...ag C..g.....C......g..t.... 2520
TY89-A: ...C.....t.g....gc. a..t...ca g..C.....t.....a..C..... 224

FIG. 2F

CONSENSUS: tgtracygay atggcyaaact tgcgmctcag cgaccggaac gcmcaymgga tgmрмаattt 2580
CEF94-A: ...g..t..cC.... ..a..... ..C..tc... ..cga..... 2580
D6948-A: ...g..t..tC.... ..a..... ..C..tc... ..cgc..... 2580
TY89-A: ...a..c..ct.... ..C..... ..a..ca... ..aaa..... 284

CONSENSUS: ycthgcaay gcwcmcarg cmgmgagcaa gtgcgaragr gccaaagtayg gsacrgcwgg 2640
CEF94-A: t..t.....C ..a..a..a. ..a..C.... ..a.....a..gC. ..g..a..a.. 2640
D6948-A: t..C.....C ..a..a..a. ..a..C.... ..a.....a..aC. ..g..a..a.. 2640
TY89-A: C..a.....t ..t..C..g. ..C..a..... ..a.....g..t. ..C..g..t.. 344

CONSENSUS: ctacggagtg gaggcymrg gccccacdcc agargargca cagagggara aagacacacg 2700
CEF94-A:tc.g.a.....a.. ..g..a..a. 2700
D6948-A:cc.g.t.... ..g..a..a. 2700
TY89-A:ta.a.g.. ..a..g..g. 404

CONSENSUS: gatctcmaag aagatggara cbatgggcat ctacttygca acaccrgaat gggtagcact 2760
CEF94-A:a..g. ..C..... ..t.... ..a..... 2760
D6948-A:a..g. ..t..... ..t.... ..a..... 2760
TY89-A:C....a.. ..g..... ..C....g..... 464

CONSENSUS: caaygggcac cgrgsgccaa gccccggcca gctvaagtac tggcaraaca camgagaaat 2820
CEF94-A: ...t..... ..a..g....a..... ..g.... ..C..... 2820
D6948-A: ...t..... ..g..g....g..... ..g.... ..C..... 2820
TY89-A: ...C..... ..a..C....C..... ..a..... ..a..... 524

CONSENSUS: accdgahccm aacgaggact aycyagacta ygtgcaygcr gagaagagcc ggttgccrtc 2880
CEF94-A: ...g..c..at.t..... ..C.....t..aa..... 2880
D6948-A: ...t..t..aC.t..... ..C.....t..aa..... 2880
TY89-A: ...a..a..cC.C..... ..t.....C..gg..... 584

CONSENSUS: agaagaacar rtcytaaggc cagcyacgtc gatctacggg gctccaggac aggcwgarc 2940
CEF94-A:a ..a..C..... ..t.... ..t.....a.....g.. 2940
D6948-A:a ..a..C..... ..t.... ..t.....a.....g.. 2940
TY89-A:g g..t..... ..C.....t..... 644

FIG. 2G

```

CONSENSUS: accccaagcy ttcatagacg aagtygccar rgtctatgaa atcaaccatg grcgtggycc 3000
CEF94-A:      .....t .....t....a a.....a .....a .....c.. 3000
D6948-A:      .....c .....c.....a .....a .....g.....c.. 3000
TY89-A:      .....c .....c.....g .....g .....g.....t.. 704

CONSENSUS: maaccargar cagatgaarg aycgtgctcyt gactgcatg gatgaagc atcgcaatcc 3060
CEF94-A:      a.....a.a .....a. t.....t. ......... 3060
D6948-A:      c.....a.a .....a. t.....c. ......... 3060
TY89-A:      a.....g..g .....g. c.....c. ......... 764

CONSENSUS: caggcgggct cyaccaaagc cmaagccaaa acccaatgct ccawcacaga gacccctgg 3120
CEF94-A:      .....t.....t.....c.....c.....a..... 3120
D6948-A:      .....c.....c.....c.....a..... 3120
TY89-A:      .....c.....c.....a.....t..... 824

CONSENSUS: wggctgggc cgctggatca ggrcbgtctc tgaaggagac ytkgagtga gywcctggga 3180
CEF94-A:      t.....t.....a.c.....t.....c.t......ta..... 3180
D6948-A:      t.....t.....g.t.....t.....c.t......ct..... 3180
TY89-A:      a.....t.....a.g.....c.....t.g......ct..... 884

CONSENSUS: gtctcccgc accaccgcg caggygtgga caccaattmr kmhhtaswrm atycsaaatt 3240
CEF94-A:      .....t.....t.....t.....cg gact..caac ..c.c..... 3240
D6948-A:      .....t.....t.....c.....cg gcca..caac ..c.c..... 3240
TY89-A:      .....t.....t.....aa tcac..gtga ..t.g..... 944

CONSENSUS: ggatccgttc gcgggtcccc 3260
CEF94-A:      .....t.....t.....t..... 3260
D6948-A:      .....t.....t.....t..... 3260
TY89-A:      .....t.....t.....t..... 964
```

FIG. 3A

CONSENSUS: ggatacgatg ggtctgacc tctgggagtc acgaattaac gtggctacta ggggygatrm 60
CEF94-B:C...aa 60
D6948-B:t...gc 60

CONSENSUS: ccrccgctrg ctgccacggt agtggtctct ctcttgatg attctccac catgagtgc 120
CEF94-B: ..g.....g.....g.....t 120
D6948-B: ..a.....a.....a.....t 120

CONSENSUS: rttttcaaya gtccacaggc gcgaagcamg atmtcagcag cgttcggcat aaagcctacw 180
CEF94-B: a.....C.....C.....t 180
D6948-B: g.....t.....a.....a 180

CONSENSUS: gctggacarg aygtggaaga actcytgatc cctaargtyt ggggtgccacc tgaggatccs 240
CEF94-B:a..C.....t.....a..t.....g 240
D6948-B:g..t.....C.....g..C.....C 240

CONSENSUS: ytkgccagcc ctagtgcwct ggcmagttc ctcagrgara acggctacaa rrttytgacg 300
CEF94-B: C.t.....a.....a.....a..g.....ag..t..... 300
D6948-B: t.g.....t.....C.....g..a.....ga..C..... 300

CONSENSUS: ccacggtctc trccygagaa tgaggagtat gagaccgayc aaatactccc wgacytagcw 360
CEF94-B:g..C.....t.....C.....a...t....a 360
D6948-B:a..t.....t.....t.....t...C....t 360

CONSENSUS: tggatgmgrc agatagargg rgctgtttta aaaccmacyc tatctctccc yattggagay 420
CEF94-B:C.a.....a..g.....C..t.....t.....t 420
D6948-B:a.g.....g..a.....a..C.....C.....C 420

CONSENSUS: caggagtact tccwaarta ctaccaaca caycgcccka gcaaggaraa gcccaatgcg 480
CEF94-B:a..g.....t.....t.....g.....g..... 480
D6948-B:t..a.....C.....g.....a.....a..... 480

FIG. 3B

CONSENSUS: taccgcgcmg ayatcgcayt actcaagcag atgatyatcy tgtttctcca ggttccmgag 540
CEF94-B:a. .C.....C.t.....t...Ca... 540
D6948-B:C. .t.....t.C...tC... 540

CONSENSUS: gccammgakr rcctwaarga tgargtmacc ctmytraccc aaaacatwag rgayaargcc 600
CEF94-B:ac..gg g...a..g.. ..a..a... .ct.g...a.. g..C..g... 600
D6948-B:ca..ta a...t..a.. ..g..C... .ac.a....t.. a..t..a... 600

CONSENSUS: tayggragtg ggacctacat gggacargcm acymgacttg tkgcyatgaa rgaggygccc 660
CEF94-B: ..t..a....a..a .tc..... .g..C..... g.....C... 660
D6948-B: ..C..g....g..C .ca..... .t..t..... a.....t... 660

CONSENSUS: actggragaa acccaaaciaa rgatcctcta aagcttggtt acacyttga gagcatmgcs 720
CEF94-B:a....g.....t.....C...g 720
D6948-B:g....a.....C.....a..C 720

CONSENSUS: cagctacttg acatcacwyt accggtaggc ccaccgggtg aggatgacaa gccctgggtr 780
CEF94-B:ac.g 780
D6948-B:tt.a 780

CONSENSUS: ccactcaciaa grgtgccgtc amggatgttg gtwtgacgg gmgacgtaga tggsgamttt 840
CEF94-B:a..... .C..... .a..... .a..... .C..C... 840
D6948-B:g..... .a..... .t..... .C..... .g..a... 840

CONSENSUS: gaggttgarg aytaccttcc caaaatcaac ctcaagtcat caagtggact rccmtatgtw 900
CEF94-B:a. .t.....a..a.....a 900
D6948-B:g. .C.....g..C.....t 900

CONSENSUS: ggtcgcacca aaggagarac wattggsgag atgatagcya tmtcraacca gtttctymga 960
CEF94-B:g.. a.....C...t.. .C..a..... .Ca.. 960
D6948-B:a.. t.....g...C. .a..g..... .tc.. 960

CONSENSUS: gagctatcar crctgytgaa gcarggtgca gggacaaarg ggtcraacaa gaagaagctr 1020
 CEF94-B:a .a..t... ..a..... .g.....g.....a.....a 1020
 D6948-B:g .g..C... ..g.....a.....a.....g.....g 1020

 CONSENSUS: ctacagcatgy taagtgacta ytggtactta tcatgygggc ttttgtttcc maaggctgar 1080
 CEF94-B:ttC..... ..a.....a.....a 1080
 D6948-B:CCt..... ..C.....g 1080

 CONSENSUS: aggtacgaca aaagyacatg gctcaccaag acccgkaaca tatggtcagc tccatcmcca 1140
 CEF94-B:t..... ..g..... ..C..... 1140
 D6948-B:C..... ..t..... ..a..... 1140

 CONSENSUS: acacacctca tgatctcwat gatmacctgg ccggtgatgt ccaayagccc aaayaacgtg 1200
 CEF94-B:t... ..C..... ..C..... ..t..... 1200
 D6948-B:a... ..a..... ..t..... ..C..... 1200

 CONSENSUS: ttgaacattg argggtgtcc rtcactctac aarttcaacc cgttiyagagg wgggytraac 1260
 CEF94-B:a..... ..a..... ..a..... ..C..... ..a...t.g... 1260
 D6948-B:g..... ..g..... ..t..... ..t..... ..C.a... 1260

 CONSENSUS: aggatcgtsg agtggatawt ggcycggaw gaaccceaagg cyytwgtata tgckgacaac 1320
 CEF94-B:C..... ..t... ..C..... ..a..... ..tc.t..... ..g..... 1320
 D6948-B:g..... ..a... ..t..... ..t..... ..ct.a..... ..t..... 1320

 CONSENSUS: atatacatgg tycactcmaa cacgtgggtac tcaattgacc tagagaaggg tgaggcaaac 1380
 CEF94-B:C..... ..a... ..C..... ..C..... ..C..... 1380
 D6948-B:t..... ..C..... ..C..... ..C..... 1380

 CONSENSUS: tgcackcgyc aacacatgca rgccgcmatg tactacatmc tyaccagagg rtggtcmgay 1440
 CEF94-B:t..C.a..... ..a..... ..a... ..C..... ..g.....a..c 1440
 D6948-B:g..t.g..... ..C..... ..t..... ..a..... ..C..t 1440

 CONSENSUS: aacggygacc cmatgttcaa tcaracatgg gccaccttgg csatgaacat tgccccwgct 1500
 CEF94-B:C..... ..a..... ..a..... ..C..... ..C..... ..t... 1500
 D6948-B:t..... ..C..... ..g..... ..g..... ..a..... 1500

Proposed Amendment

Reply to Form PTO-948 dated 7/25/02

REPLACEMENT SHEET

FIG. 3D

CONSENSUS: ctagtktgtg actcatcrtg yctgatwatg aacctkara tyaagacmta tggtaagggc 1560
CEF94-B:g.....g.. C.....a...g..a.. t.....C.. 1560
D6948-B:t.....a.. t.....t...t..g.. C.....a.. 1560

CONSENSUS: agygggaatg cagccacstt catcaacaac cayctyytka gcacsctwgt gctwgaccag 1620
CEF94-B: ..C..... ..g..... ..C..ct.g.g..a.. ..t..... 1620
D6948-B: ..t..... ..C..... ..t..tc.t.C..t.. ..a..... 1620

CONSENSUS: tggaacytga tgarrcarcc yagwccagac agcgargagt tcaartcaat tgargacaag 1680
CEF94-B:C.... ..ga..g.. C..a..... ..g..... ..a..... ..g..... 1680
D6948-B:t.... ..ag..a.. t..t..... ..a..... ..g..... ..a..... 1680

CONSENSUS: ctrgggatca acttyaagat tgagaggtcc attgatgaya tyaggggcaa gctsagacag 1740
CEF94-B: ..a..t.... ..t.... ..t..... ..t..... ..C..... ..g..... 1740
D6948-B: ..g..C.... ..C..... ..t..... ..C..t..... ..C..... 1740

CONSENSUS: cttgtccycc ttgcacaacc aggttacctg agtggrgggg tygaaccaga rcaayccagc 1800
CEF94-B:t..t....g..... ..t..... ..a...t.... 1800
D6948-B:C....t....a..... ..C..... ..g...C..... 1800

CONSENSUS: ccaactgtwg agctkgacct actmggrtgg tcwgcwacwt acagcaaaga tctygggatac 1860
CEF94-B:t.t.... ..a..g... ..a..t..a.t..... ..C..... 1860
D6948-B:a.g..... ..C..a.... ..t..a..t.t..... ..t..... 1860

CONSENSUS: tatgtgccgg tgcttgacaa ggaacgcyta ttttgytctg ctgcgtatcc caarggrgta 1920
CEF94-B:t....t....C..t....t..... ..g..a... 1920
D6948-B:t....t....t....C....t..... ..a..g... 1920

CONSENSUS: gagaayaara gycctaartc caargtyggg atcgagcarg catacaargt wgtcagggtay 1980
CEF94-B:C..g. .t.....g.. ..a..C... ..t.....g.g.....t 1980
D6948-B:t..a. .C.....a.. ..g..t... ..t.....a.t.....c 1980

CONSENSUS: gaggcgttga ggttggtagg tggttggaac taccactcc tgaacaaagc ytgcaagaay 2040
CEF94-B:t....t....t....t....C.....t 2040
D6948-B:t....t....t....t....t.....c 2040

FIG. 3E

CONSENSUS: aaygcargyg cmgctcggcg gcattctggag gccaaggggt tccrctcga ygagttcctm 2100
CEF94-B: ..C...g.C. .C..... .a..... C.....a 2100
D6948-B: ..t...a.t. .a..... .g..... t.....c 2100

CONSENSUS: gccgagtggt cwgagytgtc mgagttcggw gargcyttcg aaggcttcaa yatcaagctg 2160
CEF94-B:t...C... a.....t .g.C... ..t..... 2160
D6948-B:a...t.... C.....a .a..t.... ..C..... 2160

CONSENSUS: acmgtaacay ckgagagcct mgccgaactk aacarccag taccocccaa rcyyccaaat 2220
CEF94-B: ..C.....t .t..... a.....gag..... g..C..... 2220
D6948-B: ..a.....c .g..... C.....tga.... ..a..t..... 2220

CONSENSUS: gtcaacagac cagtcaacac yggkggrctm aaggcagtc gcaaygccct caagaccggy 2280
CEF94-B:t.....t..g..a..CC..... ..t..... 2280
D6948-B:C.....t..g..at..... ..C..... 2280

CONSENSUS: cgggtayagra aygaagccgg actragtggg ctctgtcttc tagccacmgc mngmagccgw 2340
CEF94-B:C..g. .C..... ..g.....ta.. aa.a.....t 2340
D6948-B:t..a. .t..... ..a.....CC... cc.C.....a 2340

CONSENSUS: ctrcargayg cagtyaaggc caaggcagar gccgagaac tccacaagtc yaagccmgay 2400
CEF94-B: ..g..a..t.t..... ..a.....aC.....a..C 2400
D6948-B: ..a..g..C.C..... ..g.....tC..t 2400

CONSENSUS: gaccccgatg cagactggtt ygaamgrtca gaaacytgtg cagacctkct ggagaaagcc 2460
CEF94-B:t..... ..C...a.. ..t.....t.....t..... 2460
D6948-B:t..... ..C..g... ..C.....g..... 2460

CONSENSUS: gacatygccca gcaaggctgc ycaactcagca ctctgtgaaa caagcgacgc ycttgaagcr 2520
CEF94-B:C..... ..C.....t..... ..C.....a 2520
D6948-B:t..... ..t..... ..t.....g 2520

CONSENSUS: gtycagtcra cytcmgtgta cacyccmaag taccacagarg tyaagaaccc acagaccgcc 2580
CEF94-B: ..t.....g. ..t..C..... ..t..C... ..a..C..... 2580
D6948-B: ..C.....a. .C..a..... ..C..a... ..g..t..... 2580

FIG. 3F

CONSENSUS: tccaaccccg ttgttgggt ccactgccc gccaaagarg ccaccggtgt ccaggcmgct 2640
CEF94-B:C... 2640
D6948-B:a... 2640

CONSENSUS: cttctcggag caggracgag cagaccaatg gggatggagg cyccaacacg gtccaagaac 2700
CEF94-B:C... 2700
D6948-B:t... 2700

CONSENSUS: gccgtgaaa tggccaaamg gcggcaacgc caaargaga gccgccaaya gccatgatgg 2760
CEF94-B:C... 2760
D6948-B:t... 2760

CONSENSUS: gaaccactca agaagaggac actaayccca gaccccgctt ccccgccctt cgcctgcggg 2820
CEF94-B:t... 2820
D6948-B:C... 2820

CONSENSUS: ggcccccc 2827
CEF94-B: 2827
D6948-B: 2827

CONSENSUS:	MTNLQDQTQQ	IVPFIRSLIM	PTTGPASIPD	DTLEKHTLRS	ETSTYNLTVG	DTGSLIVFF	60
CEF94-PP:	.....	.....	.....	.....	.....	.....	60
D6948-PP:	.....	.....	.....	.....	.....	.....	60
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	PGFPGSIVGA	HYTLQSNNGY	KFDQMLLTAQ	NLPASYNYCR	LVSRLTVRS	STLPGGVYAL	120
CEF94-PP:	.....	.....	.....	.....	.....	.....	120
D6948-PP:	.....	.....	.....	.....	.....	.....	120
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	NGTINAVTFQ	GSLSELTQVS	YNGLMSATAN	INDKIGNVLV	GEGVTLSLP	TSYDLGYVRL	180
CEF94-PP:	.....	.....	.....	.....	.....	.....	180
D6948-PP:	.....	.....	.....	.....	.....	.....	180
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	GDPIPAIGLD	PKMVAATCDSS	DRPRVYTITA	ADDYQFSSQY	Q.GGVITLTF	SANIDAITSL	240
CEF94-PP:	.....	.....	.....	.....	P.....	.....	240
D6948-PP:	.....	.....	.....	.....	A.....	.....	240
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	S.GGELVFQT	SV.GL.LGAT	IYLIGFDGTA	VITRAVAA.N	GLT.GTDNL.	PFN.VIPT.E	300
CEF94-PP:	V.....	H.V.....	.....	N.....	T.....L	L...N.	300
D6948-PP:	I.....	Q.I.....	.....	D.....	A.....M	I...S.	300
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ITQPITSIKL	EIVTSKSGGQ	AGDQMSWSA.	GSLAVTIHGG	NYPGALRPVT	LVAYERVATG	360
CEF94-PP:	.....	.....	.....R	.....	.....	.....	360
D6948-PP:	.....	.....	.....S	.....	.....	.....	360
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	SVVTVAGVSN	FELIPNPELA	KNLVTEYGRF	DPGAMNYTKL	ILSERDRLGI	KTVWPTREYT	420
CEF94-PP:	.....	.....	.....	.....	.....	.....	420
D6948-PP:	.....	.....	.....	.....	.....	.....	420
TY89-PP:	-----	-----	-----	-----	-----	-----	

FIG. 4B

CONSENSUS:	DFREYFMEVA	DLNSPLKIAG	AFGEKDIIRA	.RRIAPVVS	TLFPPAAPLA	HAIGEGVDYL	480
CEF94-PP:	.....	.....	.....	I.....	.....	.....	480
D6948-PP:	.....	.....	.....	L.....	.....	.....	480
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	LGDEAQAASG	TARAASGKAR	AASGRIRQLT	LAADKGYEVV	ANLFQVPQNP	VVDGILASPG	540
CEF94-PP:	.....	.....	.....	.....	.....	.....	540
D6948-PP:	.....	.....	.....	.....	.....	.....	540
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	.LRGAHNLC	VLREGATLFP	VWITVEDAM	TPKALNSKMF	AVIEGVREDL	QPPSQRGSFI	600
CEF94-PP:	V.....	.....	.....	.....	.....	.....	600
D6948-PP:	I.....	.....	.....	.....	.....	.....	600
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	RTLSGHRVYG	YAPDGVLPLE	TGRDVTVPPI	DDVWDDSIML	SKDPIPPIVG	NSGNLAIAYM	660
CEF94-PP:	.....	.....	.....	.....	.....	.....	660
D6948-PP:	.....	.....	.....	.....	.....	.....	660
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	DVFRPKVPIH	VAMTGALNA.	GEIE.VSFRS	TKLATAHRLG	LKLAGPGAED	VNTG.NWATF	720
CEF94-PP:	.....	.....C.....	.....K.....	.....	.....	.....P.....	720
D6948-PP:	.....	.....Y.....	.....N.....	.....	.....	.....S.....	720
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	IKRFPNPRD	WDRLPYLNLP	YLPPNAGRQY	HLAMAASEFK	ETPELESVR	AMEAAANVDP	780
CEF94-PP:	.....	.....	.....	.....	.....	.....	780
D6948-PP:	.....	.....	.....D.....	.....	.....	.....	780
TY89-PP:	--.....	.....T.....	.....F.....	.....L.....	.....D.....	.....D.....	58
CONSENSUS:	LFQSALSVFM	WLEENGIVTD	MANFALSDPN	AHRMRNFLAN	APQAGSKSOR	AKYGTAGYGV	840
CEF94-PP:	.....	.....	.....	.....	.....	.....	840
D6948-PP:	.....	.....	.....	.....	.....	.....	840
TY89-PP:	.R...Q...	.....	.....	.....K.....	.....	.....	118

FIG. 4C

CONSENSUS:	EARGTPEEA	QREKDRISK	KMETMGIYFA	TPEWVALNGH	RGSPGQLKY	WONTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	.....	.....	.....	.....	.....	.....	900
TY89-PP:	.....	.....	.....	.....	.....	.....E.	178
CONSENSUS:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APQAEPPQA	FIDEVAKYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	.....	.....	.....	.....	.....	.....	960
TY89-PP:	.....P	.....V	.....	.....	.....R	.....	238
CONSENSUS:	QMKDLLLTAM	EMKHRNPRA	PPKPKPKPNA	PTQPPGRLG	RWIRTVSD	LE	1012
CEF94-PP:	.....	.....	.....L	.....	.....	.....	1012
D6948-PP:	.....	.....	.....	.....	.....A	.....	1012
TY89-PP:	.....	.....	.....	.....S	.....	.....	290

FIG. 5A

CONSENSUS: MSD.FNSPQA RS.ISAAGI KPTAGQDVEE LLIPKVWVPP EDPLASPSRL AKFLRENGYK	60
CEF94-VP1: I T	60
D6948-VP1: V K	60
CONSENSUS: .LQPRSLPEN EEYETDQILP DLAWMRQIEG AVLKPTLSLP IGDQEYFPKY YPTHRPSKEK	120
CEF94-VP1: V	120
D6948-VP1: I	120
CONSENSUS: PNAYPPDIAL LKQMIYLFLO VPEA LKD EVTLLTQNIR DKAYGSGTYM GOATRLVAMK	180
CEF94-VP1:	180
D6948-VP1:	180
CONSENSUS: EVATGRNPKNK DPLKLGTYFE SIAQLLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD	240
CEF94-VP1:	240
D6948-VP1:	240
CONSENSUS: G.FEVEDYLP KINKSSSGL PYVGRTKGET IGEMIAISNQ FLRELS.LLK QGAGTKGSNK	300
CEF94-VP1: .D	300
D6948-VP1: .E	300
CONSENSUS: KKLMLSDY WYLSGGLLEP KAERYDKSTW LTKTRNIWSA PSPTHLMISM ITWPVMSNSP	360
CEF94-VP1:	360
D6948-VP1:	360
CONSENSUS: NNVLNIEGCP SLYKFNPFRG GLNRIVEWI. AP.EPKALVY ADNIYIVHSN TWYSIDLEKG	420
CEF94-VP1:	420
D6948-VP1:	420
CONSENSUS: EANCTRQHMQ AAMYYILTRG WSDNGDPMFN QTWATFAMNI APALVVDSSC LIMNLQIKTY	480
CEF94-VP1:	480
D6948-VP1:	480
CONSENSUS: GQSGGNAATE INNHLSTLV LDQWNLM.QP .PDSEEFKSI EDKLGINFKI ERSIDDIRGK	540
CEF94-VP1:	540
D6948-VP1:	540

FIG. 5B

CONSENSUS: LRQLV.LAQP GYLSGGVEPE Q.SPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP	600
CEF94-VP1: .....L.....S.....	600
D6948-VP1: .....P.....	600
CONSENSUS: KGVENKSLKS KVGIEQAYKV VRYEALRLVG GWNYPLLKA CKNNA.AARR HLEAKGFFLD	660
CEF94-VP1: .....G.....	660
D6948-VP1: .....S.....	660
CONSENSUS: EFLAEWSELS EFGEAFEGFN IKLTVT.ESL AELN.PVPPK PPNVNRPVNT GGLIKAVSNAL	720
CEF94-VP1: .....S.....K.....	720
D6948-VP1: .....P.....R.....	720
CONSENSUS: KTGRYRNEAG LSGLVLLATA RSRLQDAVKA KAAEKLHKS KPDDPDADWF ERSETLSDLL	780
CEF94-VP1: .....K.....	780
D6948-VP1: .....K.....	780
CONSENSUS: EKADIASKVA HSALVETSDA LEAVQSTSVY TPKYPEVKNP QTASNPPVGL HLPKAKRATGV	840
CEF94-VP1: .....K.....	840
D6948-VP1: .....K.....	840
CONSENSUS: QAALLGAGTS RPMGMEAPTR SKNAVKNMAKR RQOKESRQ.	881
CEF94-VP1: .....Q P	881
D6948-VP1:--	879

FIG. 6

CONSENSUS:	MVSRDQTNDR	SDD.PARSNP	TDCSVHTEPS	DANNRTGVHS	GRHP.EAHSQ	VRDLDLQFDC	60
D6948-VP5:	.....	E.....	.....	.....	R.....	.....	60
CEF94-VP5:	.....	K.....	.....	.....	G.....	.....	60
CONSENSUS:	GGHRVRANCL	FPW.PWLNCG	CSLHTAEQWE	LQVRSDAPDC	PEPTGQLQLL	QASESESHSE	120
D6948-VP5:	.....	F.....	.....	.....	.....	.....	120
CEF94-VP5:	.....	I.....	.....	.....	.....	.....	120
CONSENSUS:	VKHT.WWRLC	TK.HHKRRDL	PRKPE				145
D6948-VP5:	....P.....	..W.....	.....				145
CEF94-VP5:	....S.....	..R.....	.....				145

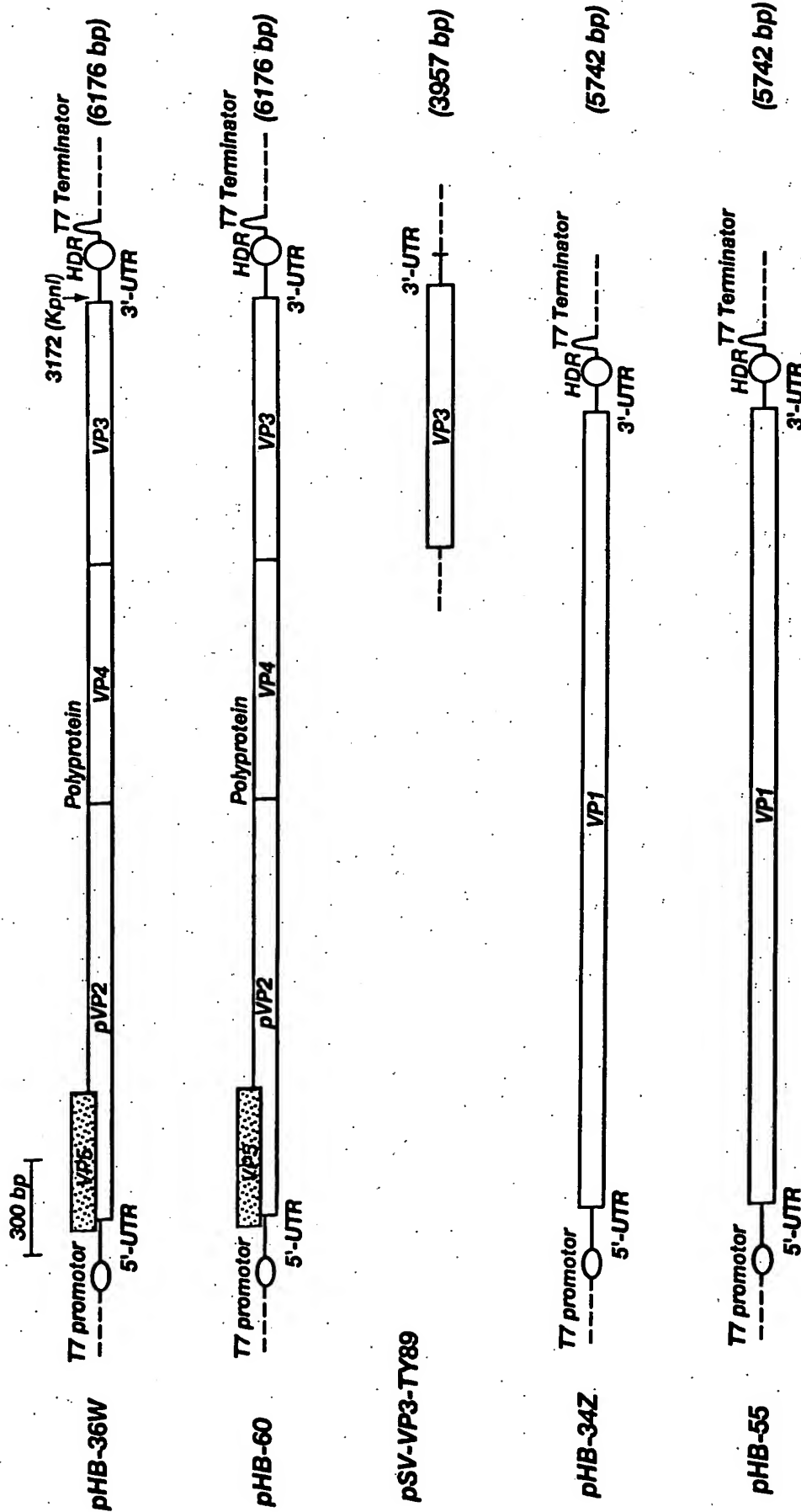


FIG. 7

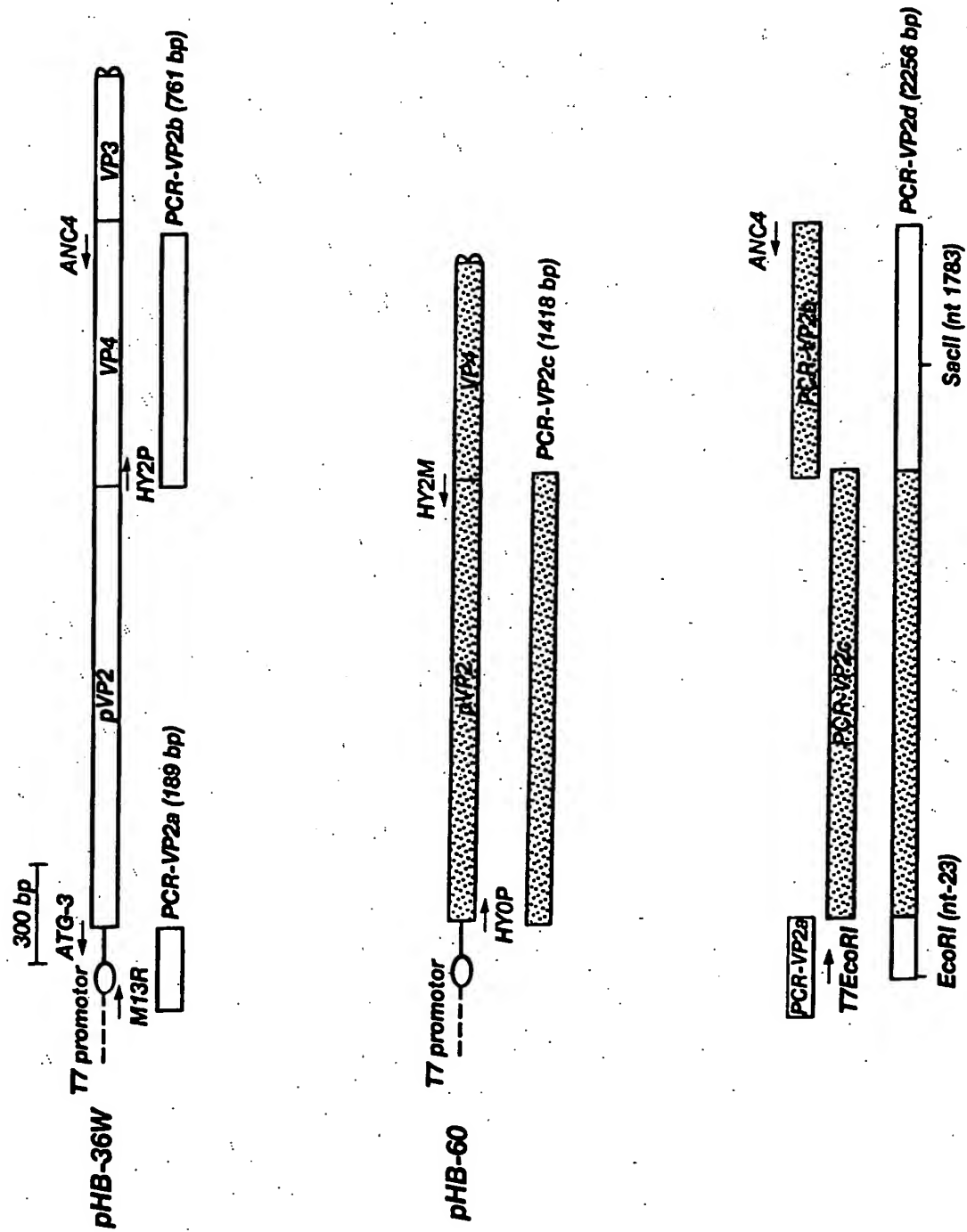


FIG. 8A

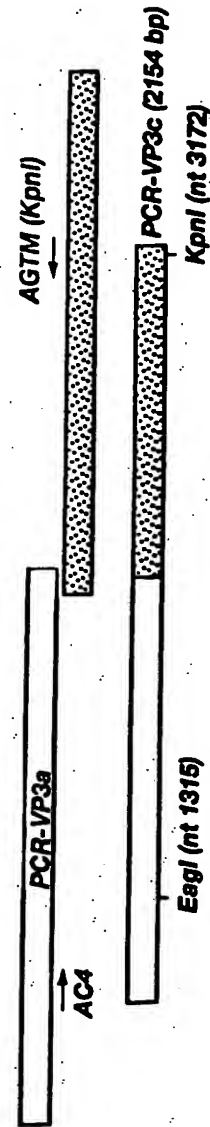
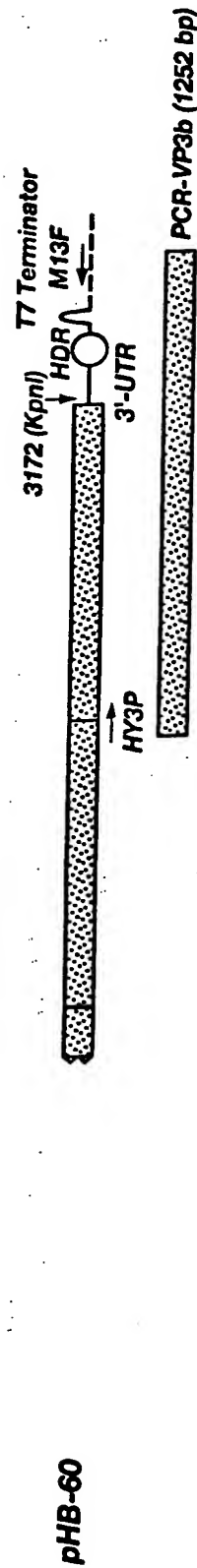
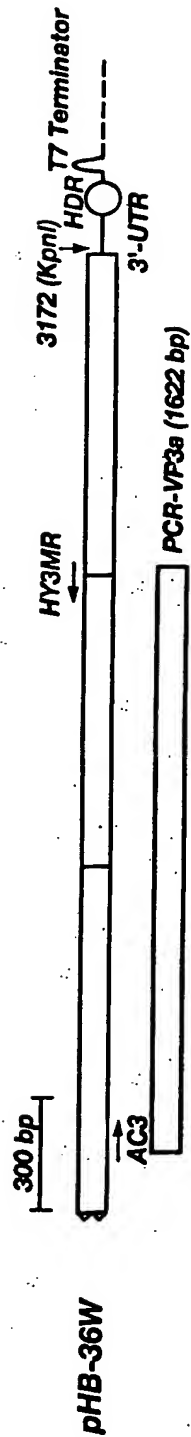


FIG. 8B

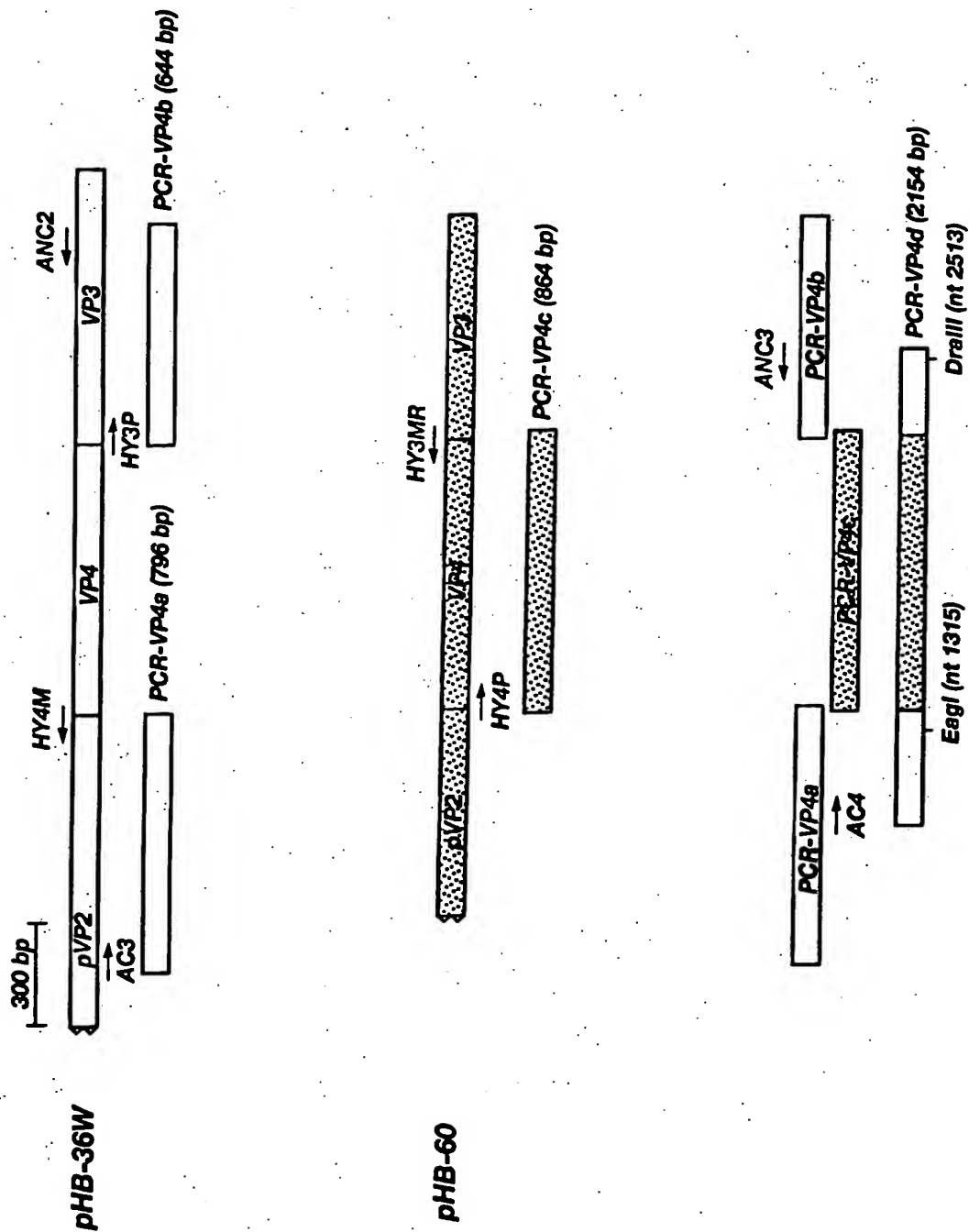
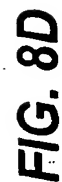


FIG. 8C



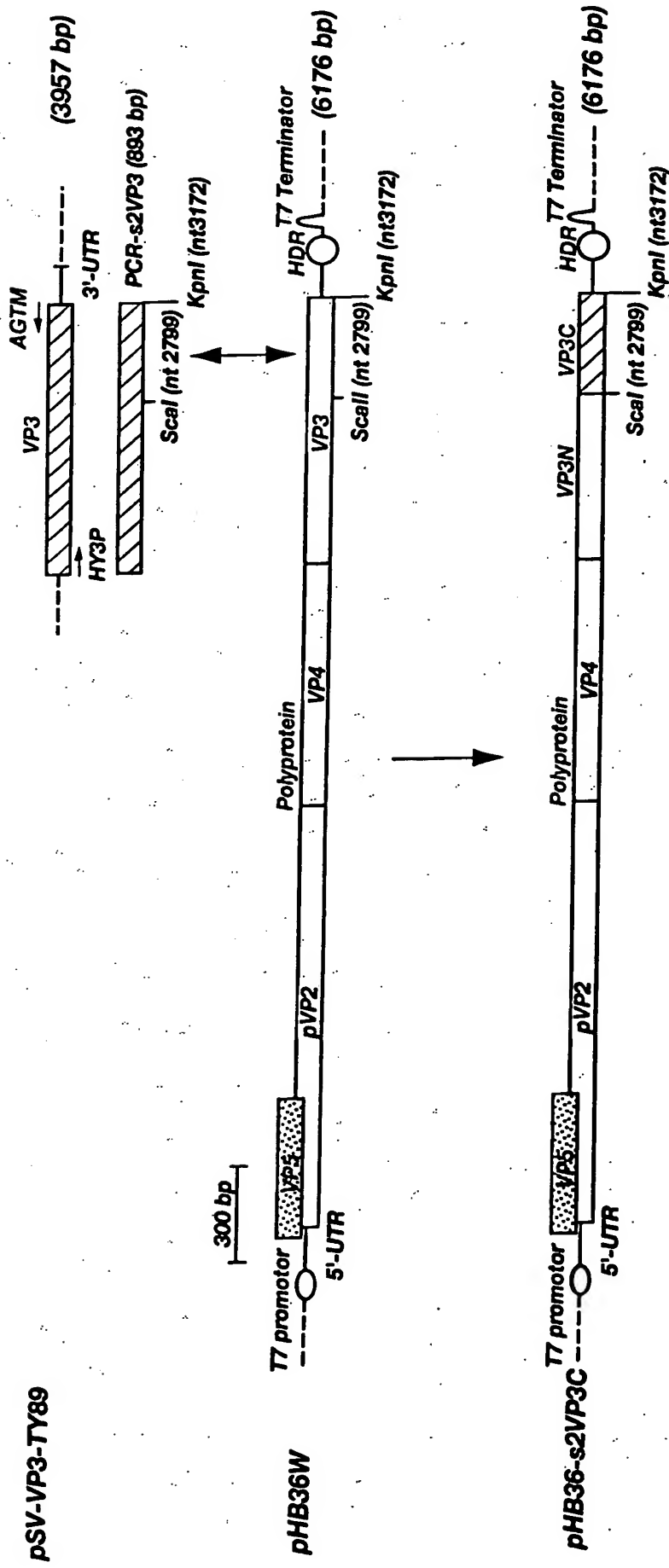


FIG. 8E

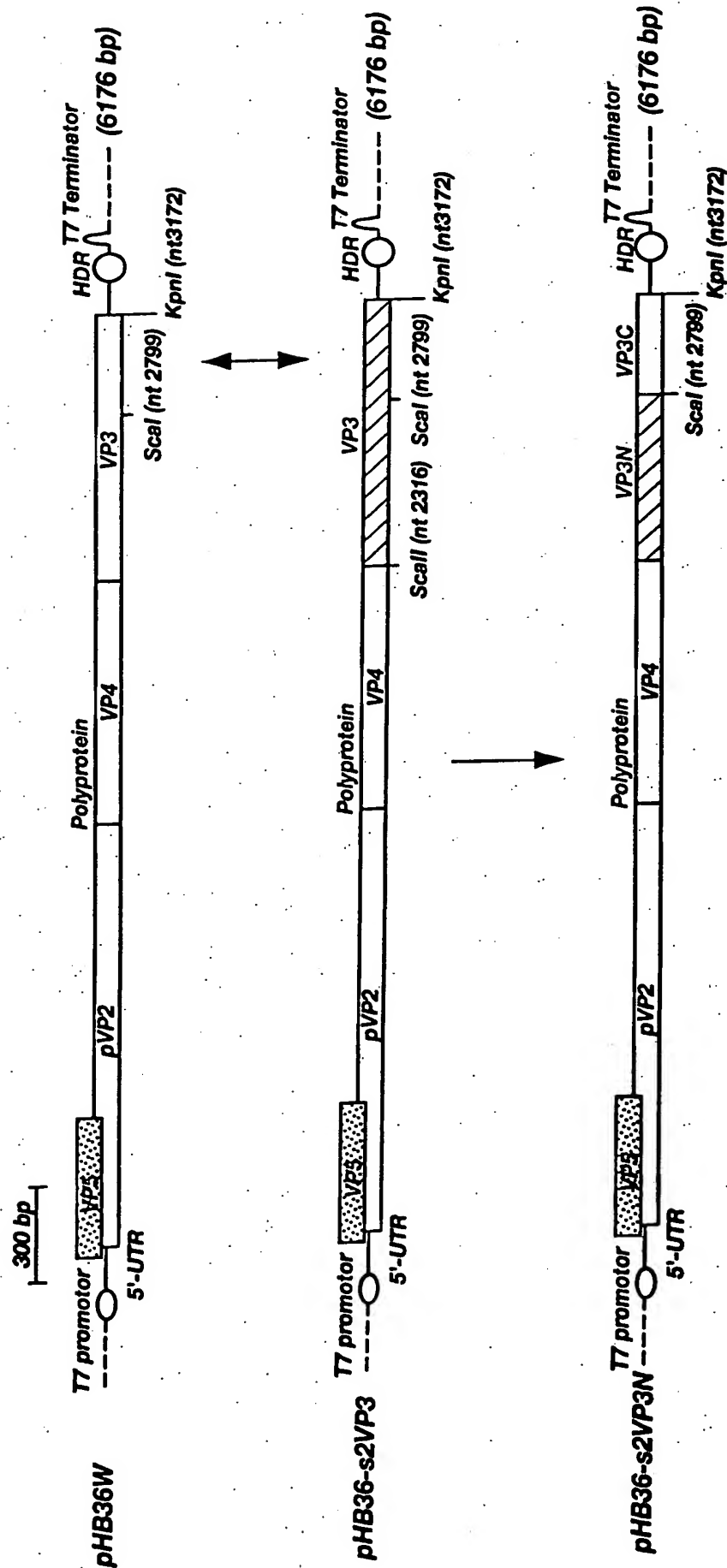


FIG. 8F

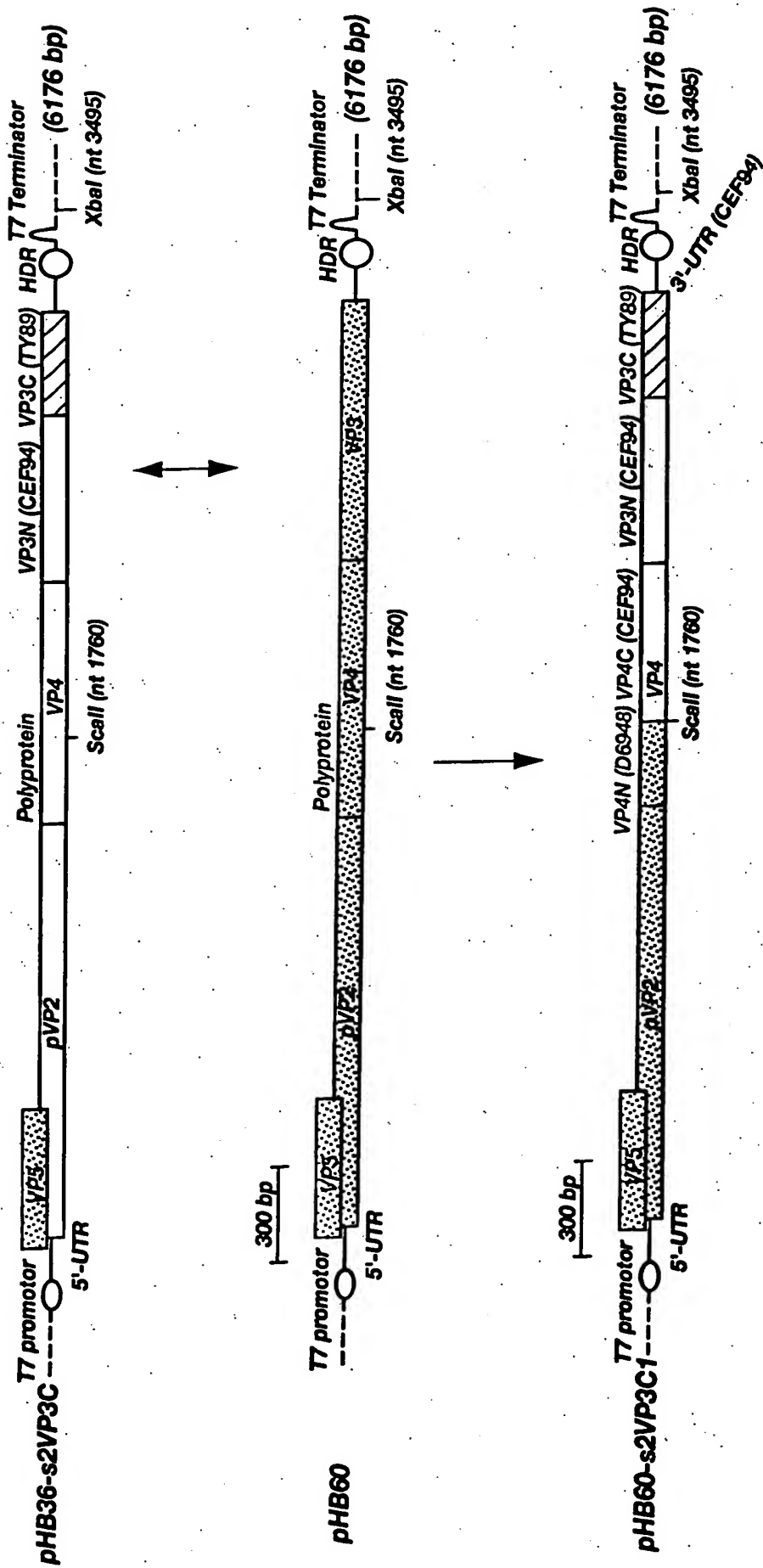

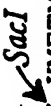


FIG. 8G

FIG. 9



CEF94-PP: 724-FPHNPRD WDRLPYLNLP YLPPNAGROY HLAMAASEFK ETPELESVR AMEAAANVDP 780	
TY89-PP: 724-.....T....F...L.....D... ..D..... 780	
CEF94-PP: LFQSALSVFM WLENGIVTD MANFALSDPN AHRMRNFLAN APOAGSKSQR AKYGTAGYGV 840	
TY89-PP: ..R...Q... ..K..... ..D..... 840	
CEF94-PP: EARGTPEEA QREKDRISK KMETMGIYFA TPEWVALNGH RGPSPGQLKY WQNTREIPDP 900	
TY89-PP: ..... ..D..... ..E. 900	
CEF94-PP: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APQAEPPQA FIDEVAKVYE INHGRGPNQE 960	
TY89-PP: .....P.....V..... ..R... ..D..... 960	
CEF94-PP: QMKDLLLTAM EMKHRNPRRA LPKPKPKPNA PTQRPGRGLG RWIRTVSDER LE 1012	
TY89-PP: .....P.....S..... ..D..... 1012	



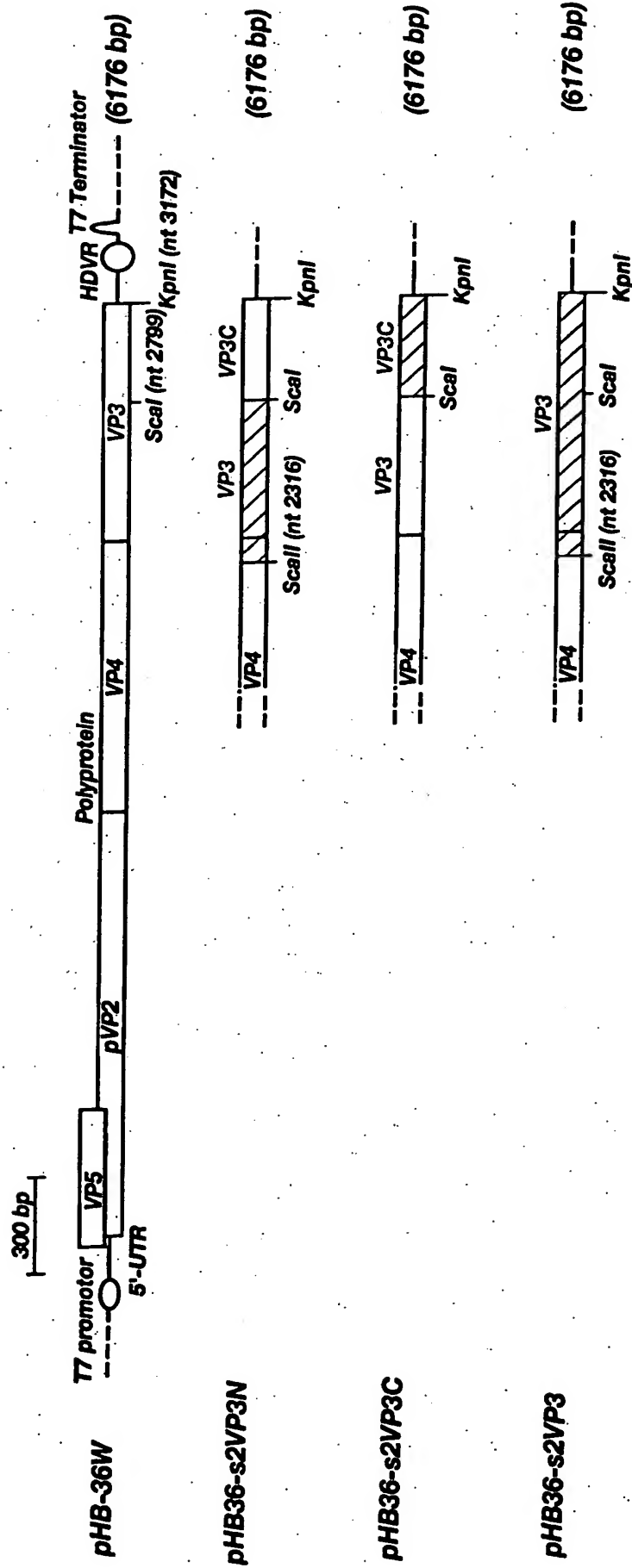
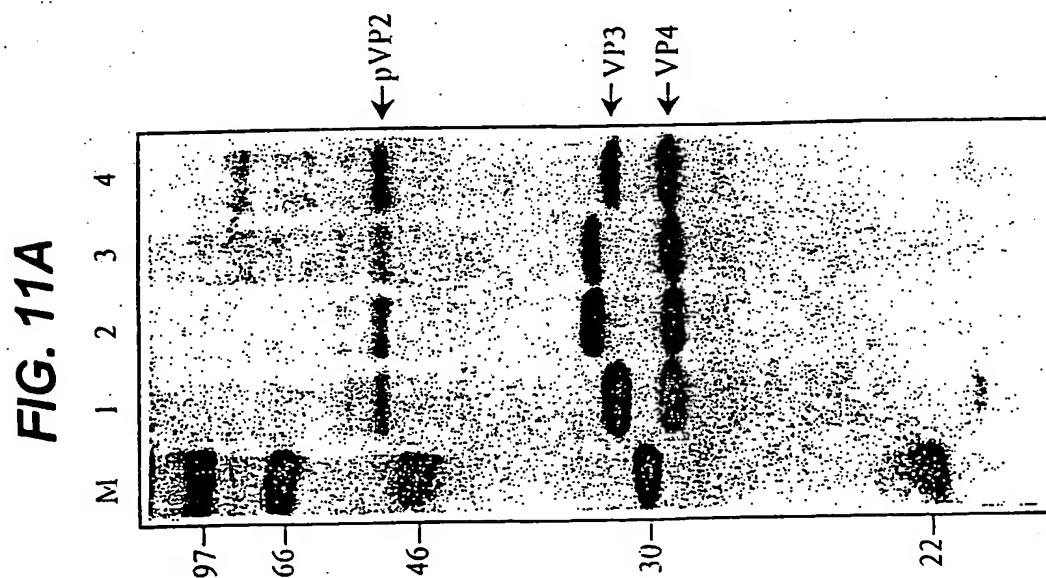
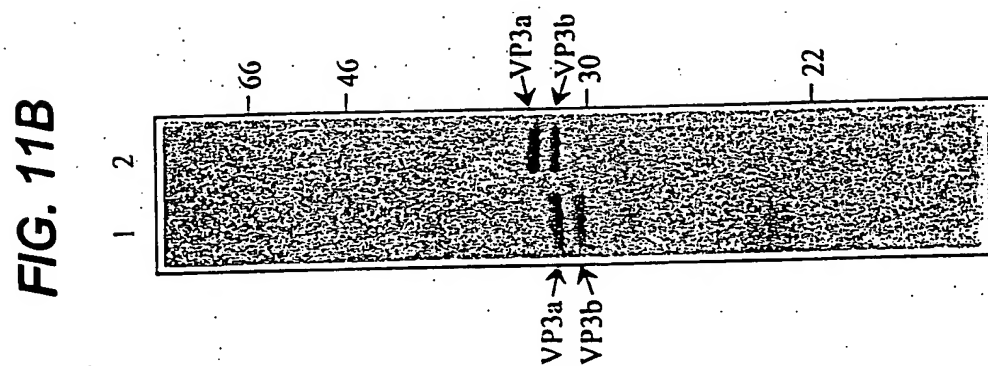
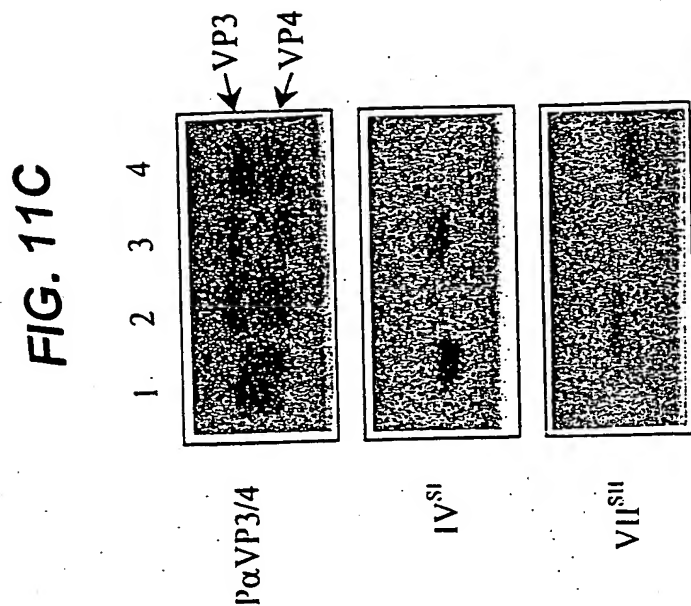


FIG. 10



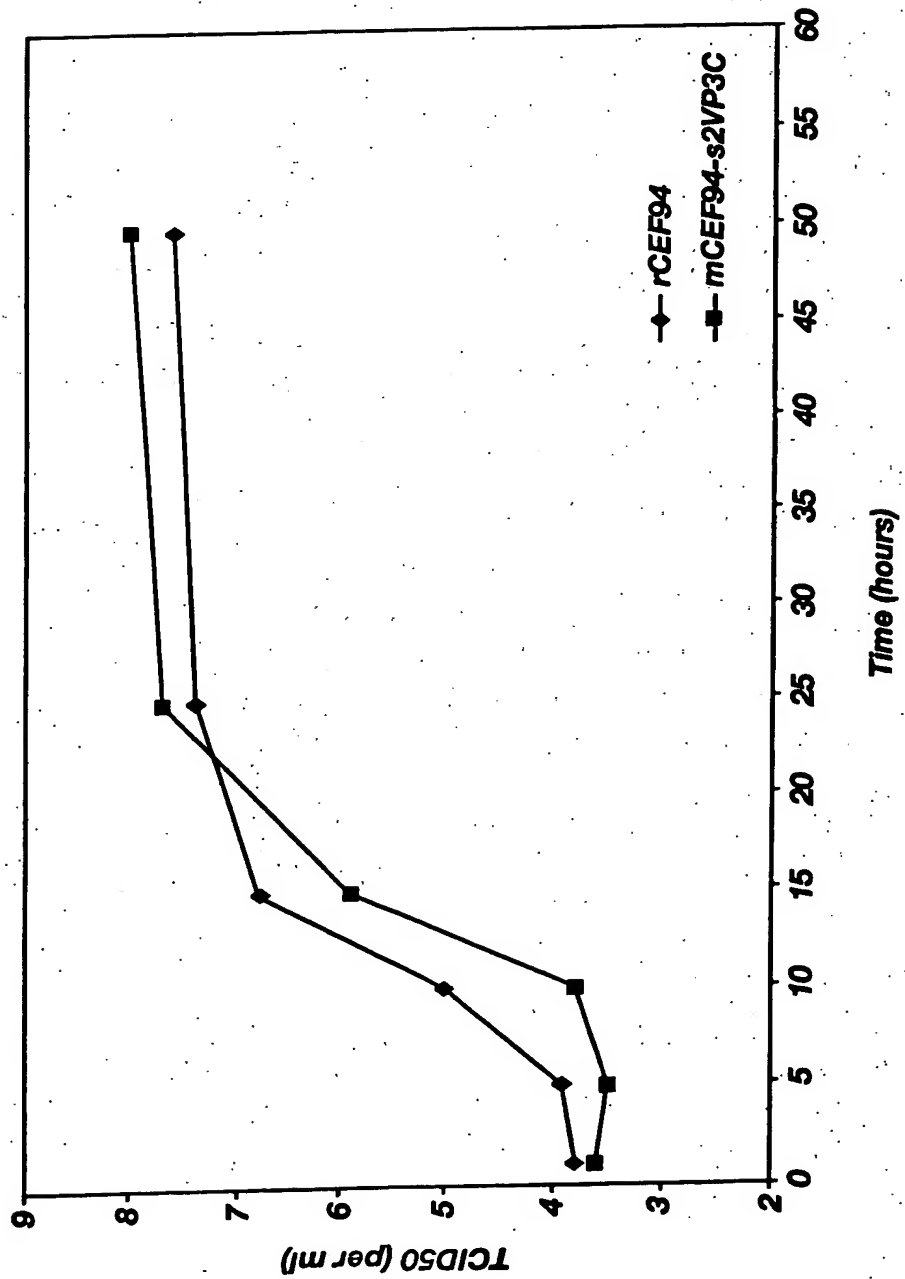
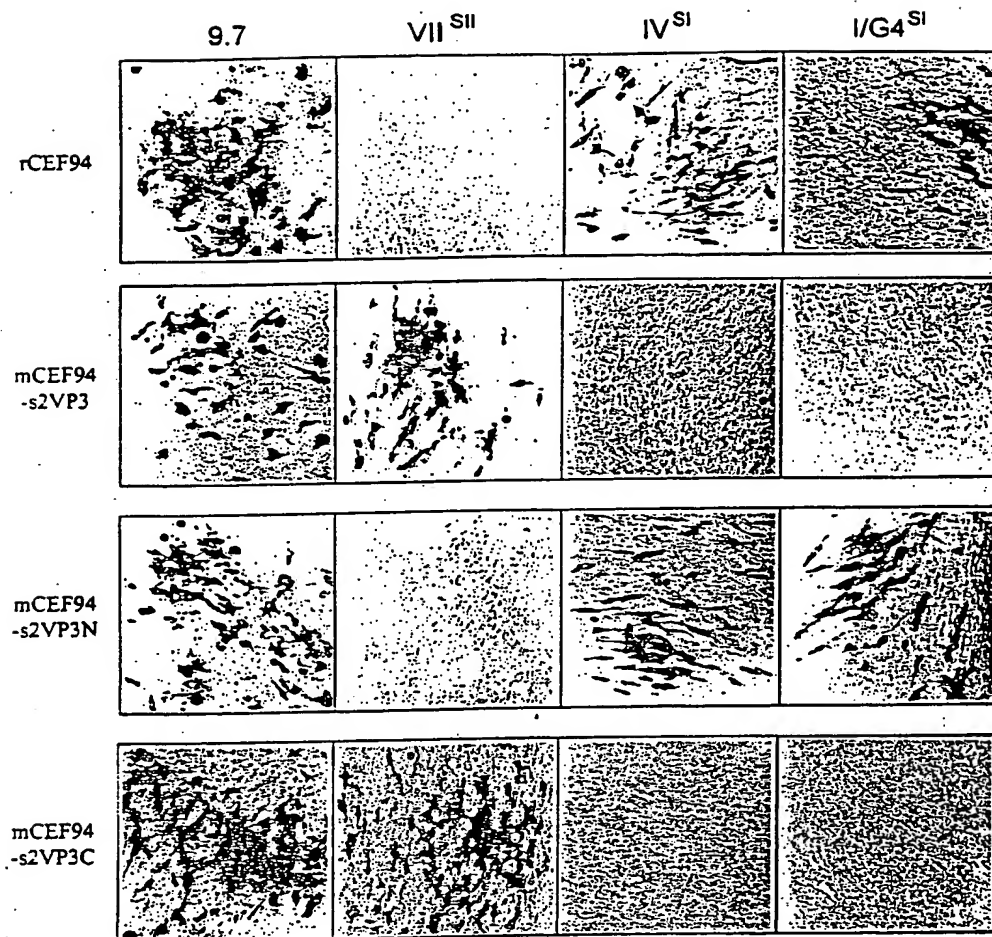


FIG. 12

FIG. 13



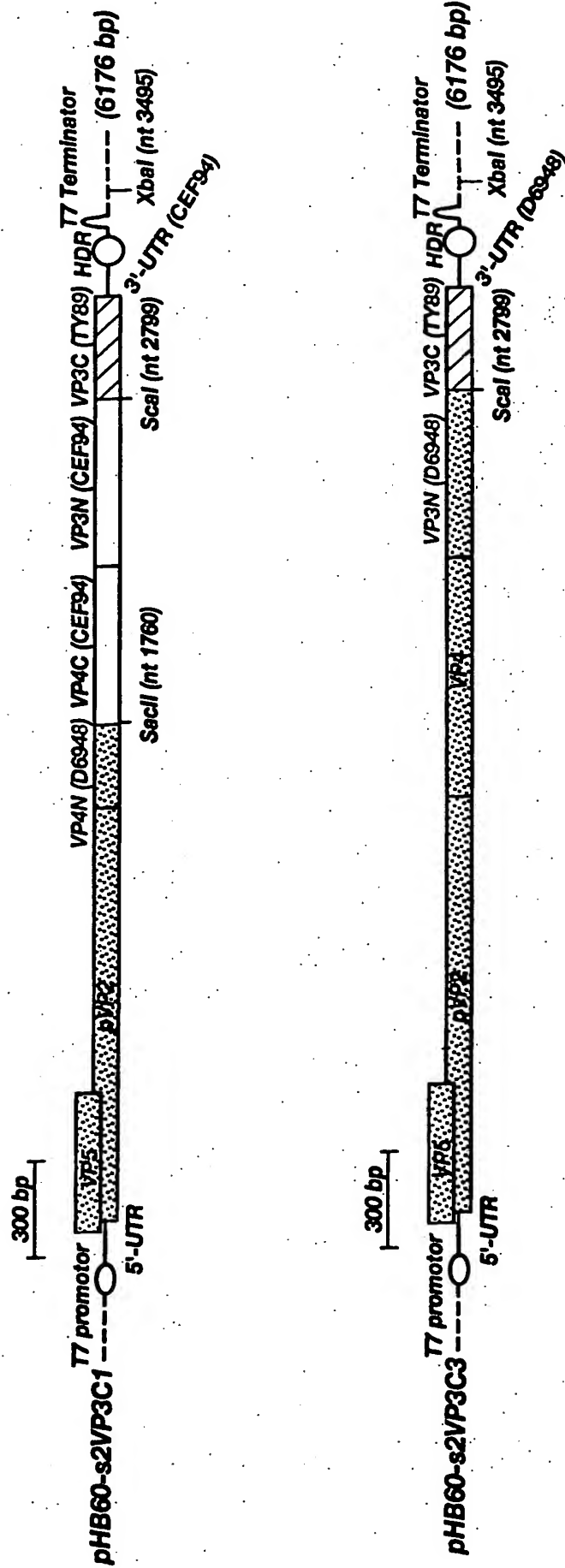
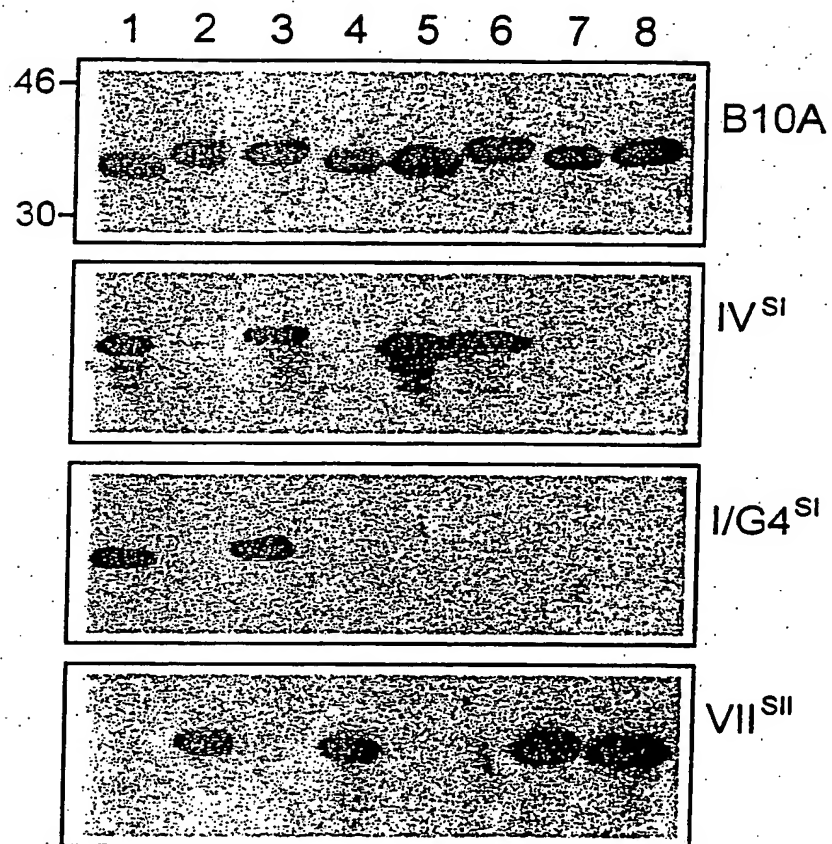


FIG. 14

FIG. 15



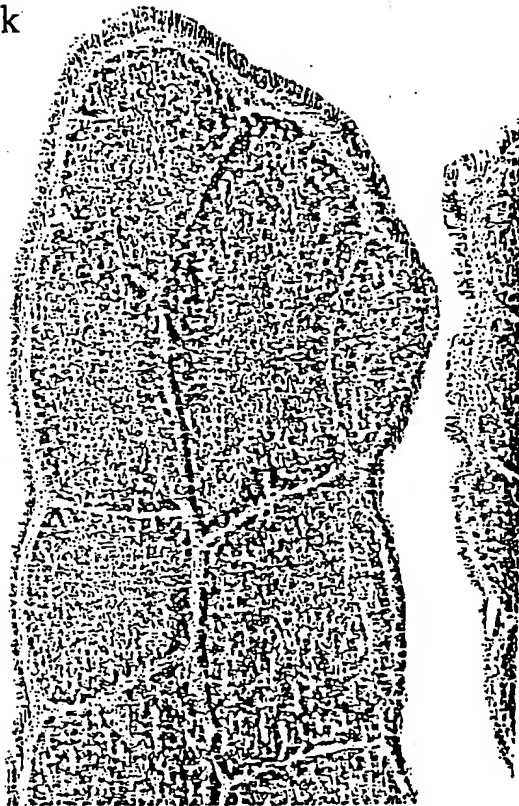
REPLACEMENT SHEET

FIG. 16

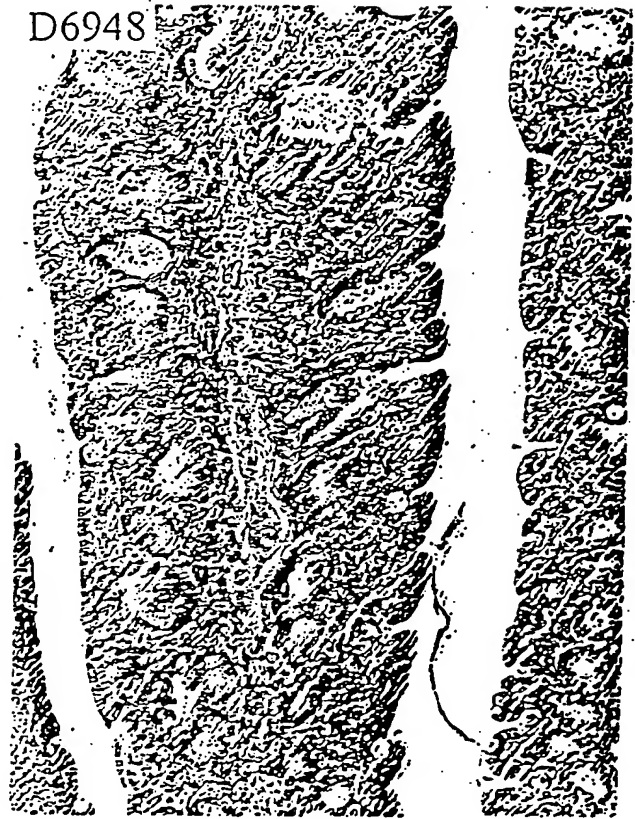
VP4 ← → VP3
 Sac II
 CEF94-PP: 724-FPHNPRD WDRLPYLNL P YLPPNAGROY HLA MAASEFK ETPELES AVR AMEAAA NVDP 780
 D6948: D.....
 TY89-PP: 724-..... T..... F..... L..... D.....
 CEF94-PP: LFQSALSVFM WLEENGIVTD MANFALSDPN AHRMRNFLAN APQAGSKSQR AKYGTAGYGV 840
 D6948:
 TY89-PP: R... Q..... K.....
 Sac I
 CEF94-PP: EARGPTPEEA QREKDTRISK KMETMGIYFA TPEWVALNGH RGPSPQLKY WONTREIPDP 900
 D6948:
 TY89-PP: E. 900
 CEF94-PP: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APQAEPPQA FIDEVAKVYE INHGRGPNOE 960
 D6948:
 TY89-PP: P..... V..... R.....
 CEF94-PP: QMKDLLLTAM EMKHRNPRRA LPKPKPKPNA PTORPPGRLG RWIRTVSDED LE 1012
 D6948: P..... A.....
 TY89-PP: P..... S.....

FIG. 17

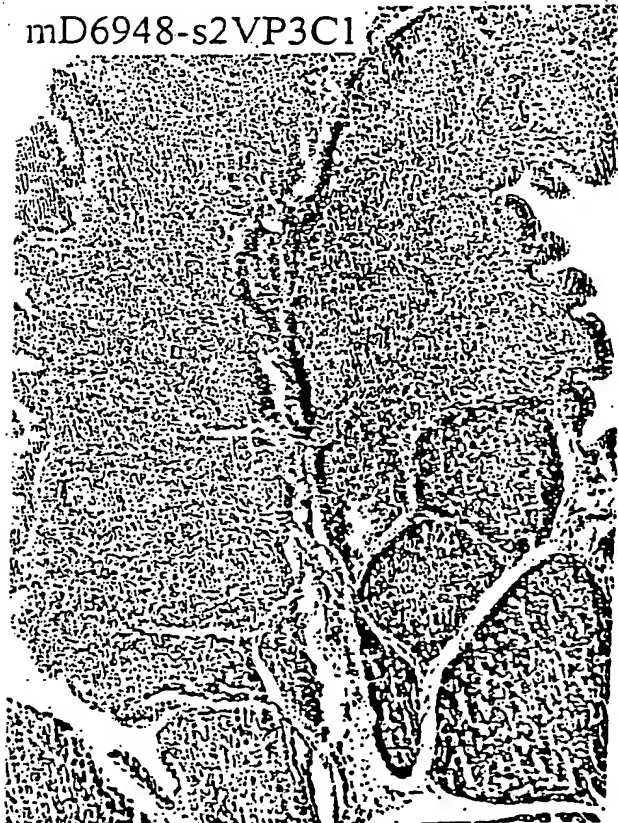
Mock



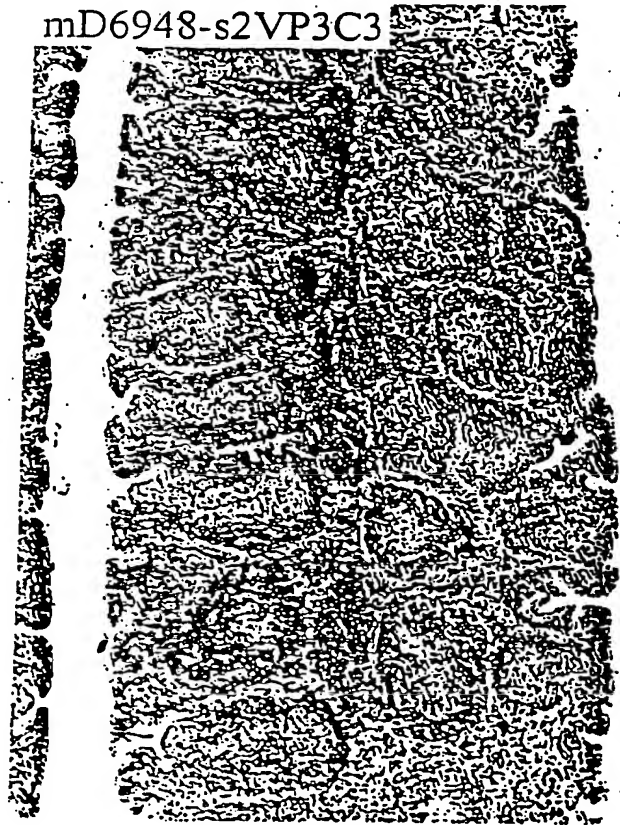
D6948



mD6948-s2VP3C1



mD6948-s2VP3C3



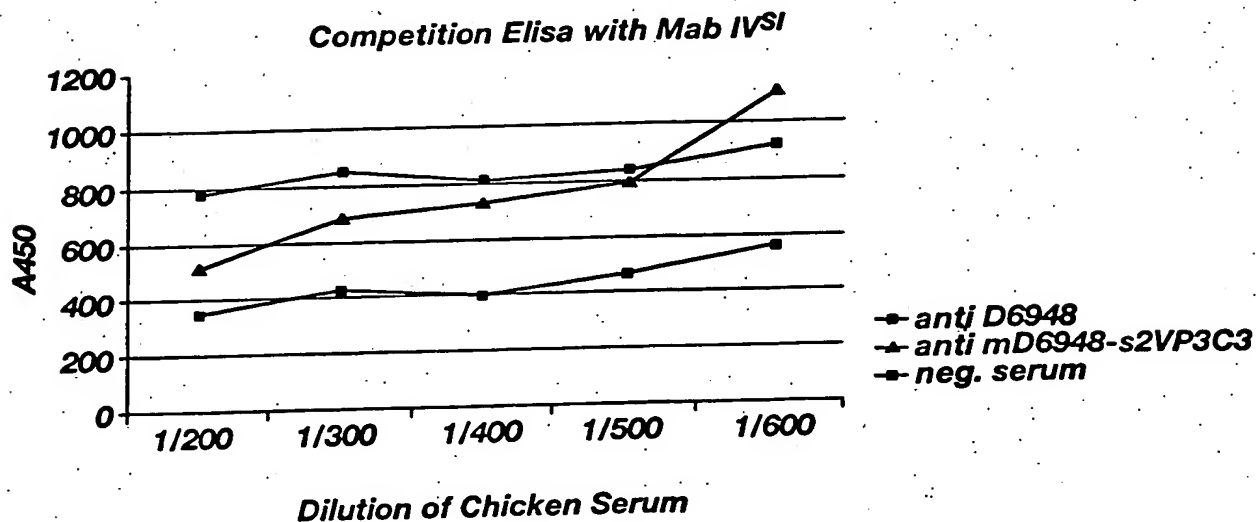
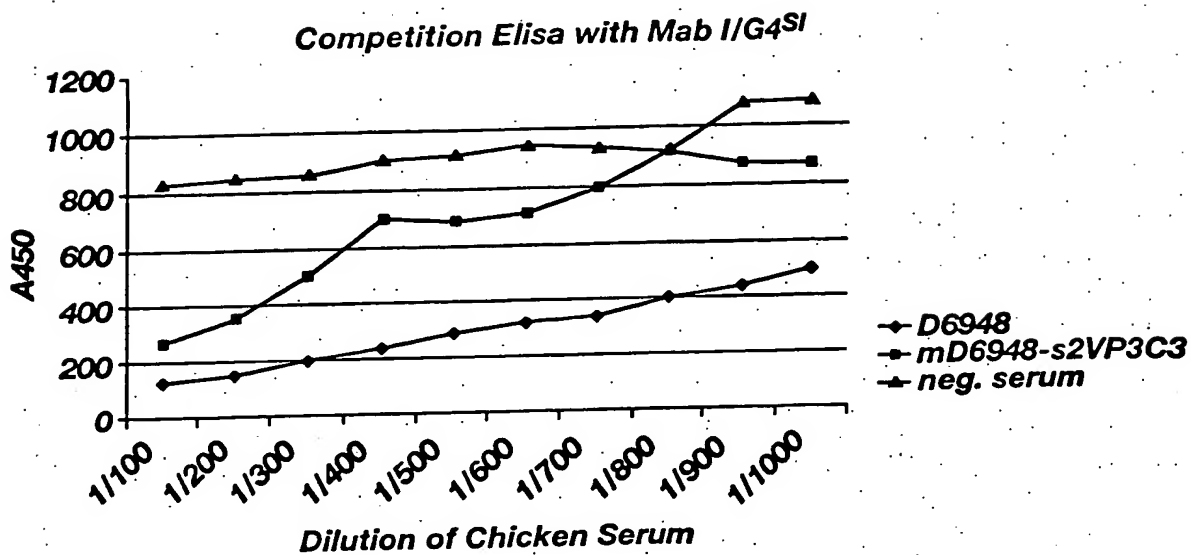


FIG. 18

FIG. 19

D6948-VP5: MSLMVSRDQ TNDRSSDEPA RSNPTDCSVH TEPDANNRT GVHSGRHPRE AHSQVRDLDL 60
CEF94-VP5: ----K..G. 56

D6948-VP5: QFDCGGHRVR ANCLFPWFPW LNCGCSLHTA EQWELQVRSD APDCPEPTGQ LQLLOASESE 120
CEF94-VP5:I.. 116

D6948-VP5: SHSEVKHTPW WRLCTKWHHK RRDLPKPE 149
CEF94-VP5:S.R... 145

Proposed Amendment

Reply to Form PTO-948 dated 7/25/02

REPLACEMENT SHEET

FIG. 20A

D6948-PP:	MTNLQDQTOQ	IVPFIRSLM	PTTGASIPD	DTLEKHTLRS	ETSTYNLTVG	DTGSLIVFF	60
CEF94-PP:	.....	.....	.....	.....	.....	.....	60
D6948-PP:	PGFPGSIVGA	HYTLQSNNGY	KFDQMLLTAQ	NLPASYNCR	LVSRLTVRS	STLPGGVYAL	120
CEF94-PP:	.....	.....	.....	.....	.....	.....	120
D6948-PP:	NGTINAVTFQ	GSLSELTDS	YNGLMSATAN	INDKIGNVLV	GEGVTLSLP	TSYDLGYVRL	180
CEF94-PP:	.....	.....	.....	.....	.....	.....	180
D6948-PP:	GDIPIAIGLD	PKMVATCDSS	DRPRVYTITA	ADDYQESSQY	QAGGVITILF	SANIDAITSL	240
CEF94-PP:	.....	.....	.....	.....	.....	.....	240
D6948-PP:	SIGGELVFOT	SVQGLILGAT	IYLLIGFDGTA	VITRAVAADN	GLTAGTDNLM	PFNIVIPTSE	300
CEF94-PP:	V.....	H.V.....	.....	N.....	T.....	L.....	N. 300
D6948-PP:	ITQPITSIKL	EIVTSKSGGQ	AGDQMSWSAS	GSLAVTIHGG	NYPGALRPVT	LVAYERVATG	360
CEF94-PP:	.....	.....	.....	.....	.....	.....	360
D6948-PP:	SVVTVAGVSN	FELIPNELA	KNLVTEYGRF	DPGAMNYTKL	ILSERDRLGI	KTVWPTREYT	420
CEF94-PP:	.....	.....	.....	.....	.....	.....	420
D6948-PP:	DFREYFMEVA	DLNSPLKIAG	AFGEKDIIRA	LRRIAIVPVVS	TLFPPAAPLA	HAIGEGVDYL	480
CEF94-PP:	.....	.....	.....	I.....	.....	.....	480
D6948-PP:	LGDEAQAASG	TARAASGKAR	AASGRIROLT	LAADKGYEVV	ANLFQVPQNP	VVDGILASPG	540
CEF94-PP:	.....	.....	.....	.....	.....	.....	540
D6948-PP:	ILRGAHNLDC	VLREGATLFP	VVITTVEDAM	TPKALNSKMF	AVIEGVREDL	QPPSQRGSFI	600
CEF94-PP:	V.....	.....	.....	.....	.....	.....	600
D6948-PP:	RTLSGHRVYG	YAPDGVLPLE	TGRDYTVVPI	DDVWDDSIML	SKDPIPIVIG	NSGNLAIAYM	660
CEF94-PP:	.....	.....	.....	.....	.....	.....	660
D6948-PP:	DVFRPKVPIH	VAMTGALNAY	GEIENVSFERS	TKLATAHRLG	LKLAGPGAFF	VNTGSNWATE	720
CEF94-PP:	.....	.....	C.....	K.....	.....	P.....	720

FIG. 20B

D6948-PP:	IKRFPNPRD	WDRLPYLNLP	YLPNAGROY	DLAMAASEFK	ETPELESVR	AMEAAANVDP	780
CEF94-PP:				H			780
D6948-PP:	LEQSALSVFM	WLEENGIVTD	MANFALSDPN	AHRMRNFLAN	APQAGSKSOR	AKYGTAGYGV	840
CEF94-PP:							840
D6948-PP:	EARGPTPEEA	QREKDRISK	KMETMGIYFA	TPEWVALNGH	RGSPGQLKY	WQNTREIPDP	900
CEF94-PP:							900
D6948-PP:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APGOAEPPOA	FIDEVAKVYE	INHGRGNQE	960
CEF94-PP:							960
D6948-PP:	QMKDLLLTAM	EMKHRNPRA	PPKPKPKPNA	PTQRPPGRLG	RWIRAVSDED	LE	1012
CEF94-PP:			L		T		1012

FIG. 21A

D6948-VP1: MSDVFNPOA RSKISAAFGI KPTAGQDVEE LLIPKVVWPP EDPLASPSRL AKFLRENGYK 60
CEF94-VP1: ...I.....T..... 60

D6948-VP1: ILQPRSLPEN EYEYTDQILP DLAWMRQIEG AVLKPTLSLP IGDQYFPHY YPTHRPSKEK 120
CEF94-VP1: V..... 120

D6948-VP1: PNAYPPDIAL LKQMIYLFLO VPEATDNLKD EVTLTLQNIR DKAYGSGTYM GOATRLVAMK 180
CEF94-VP1:NEG..... 180

D6948-VP1: EVATGRPNPK DPLKLGTYFE SIAQLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD 240
CEF94-VP1: 240

D6948-VP1: GEFVEDYLP KINKSSSGL PYVGRTKGET IGEMIAISNQ FLRELSALLK QGAGTKGSNK 300
CEF94-VP1: .D.....T... 300

D6948-VP1: KLLSMLSDY WYLSGGLLFP KAERYDKSTW LTKTRNIWSA PPSHTLMISM ITWPVMSNSP 360
CEF94-VP1: 360

D6948-VP1: NNVLNIEGCP SLYKENPFRG GLNRIVEM APDEPKALVY ADNIYIVHSN TWYSIDLEK 420
CEF94-VP1:L.E..... 420

D6948-VP1: EANCTRQHMQ AAMYIILTRG WSDNGDPMFN QTWATFAMNI APALVVDSSC LIMNLQIKTY 480
CEF94-VP1: 480

D6948-VP1: GQSGNAATE INNHLSTLV LDOWNLMKQP SPDSEEFKSI EDKLGINFKI ERSIDDIRGK 540
CEF94-VP1:R..R..... 540

D6948-VP1: LRQLVPLAQP GYLSGGVEPE QPSPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP 600
CEF94-VP1:L.....S..... 600

D6948-VP1: KGVENKSLKS KVGIEQAYKV VRYEALRLVG GWNYPLLNKA CKNNASAARR HLEAKGFPLD 660
CEF94-VP1:G..... 660

D6948-VP1: EFLAEWSELS EFGEAFEGFN IKLTVTPESL AELNRPVPPK PPNVNRPVNT GGLKAVSNAL 720
CEF94-VP1:S....K..... 720

FIG. 21B

D6948-VP1: KTGRYRNEAG LSGLVLLATA RSRLODAVKA KAEAEKLHKS KPDDPDADWF ERSETLSDLL 780
CEF94-VP1: 780

D6948-VP1: EKADIASKVA HSALVETSDA LEAVQSTSVY TPKYPEVKNP QTASNPVVGL HLPKAKRATGV 840
CEF94-VP1: 840

D6948-VP1: QAALLGAGTS RPMGMEAPTR SKNAVKNMAGR RORQKESRQ- - 879
CEF94-VP1:Q P 881

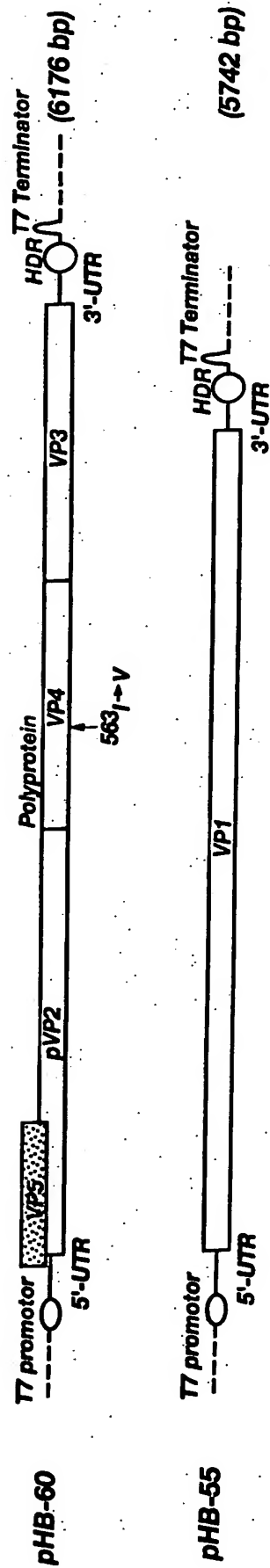


FIG. 22

FIG. 23C

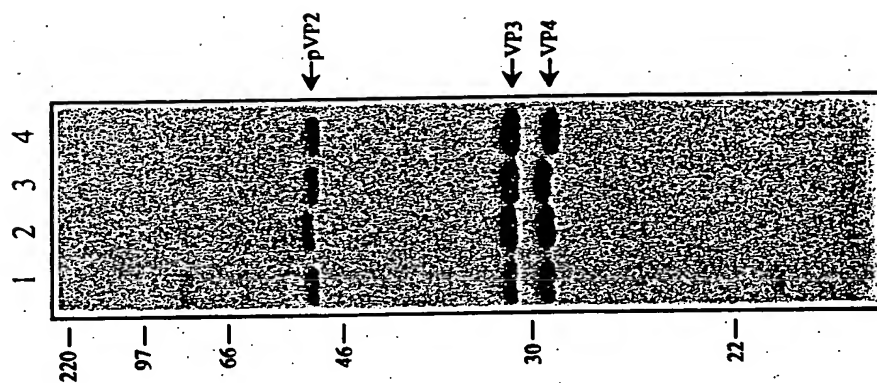


FIG. 23B

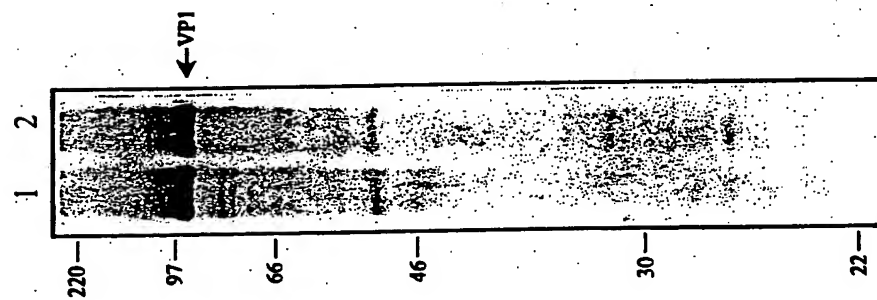


FIG. 23A

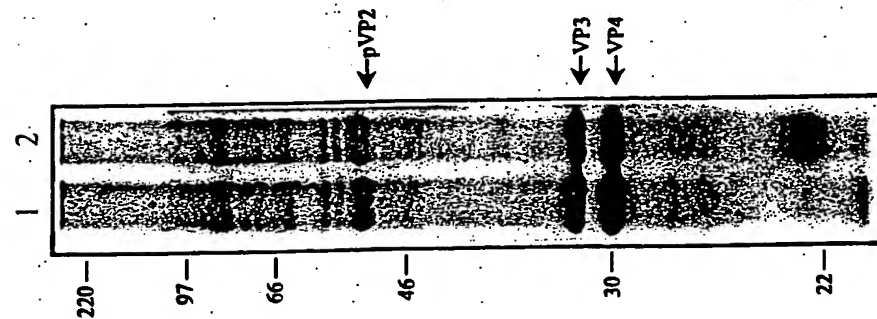
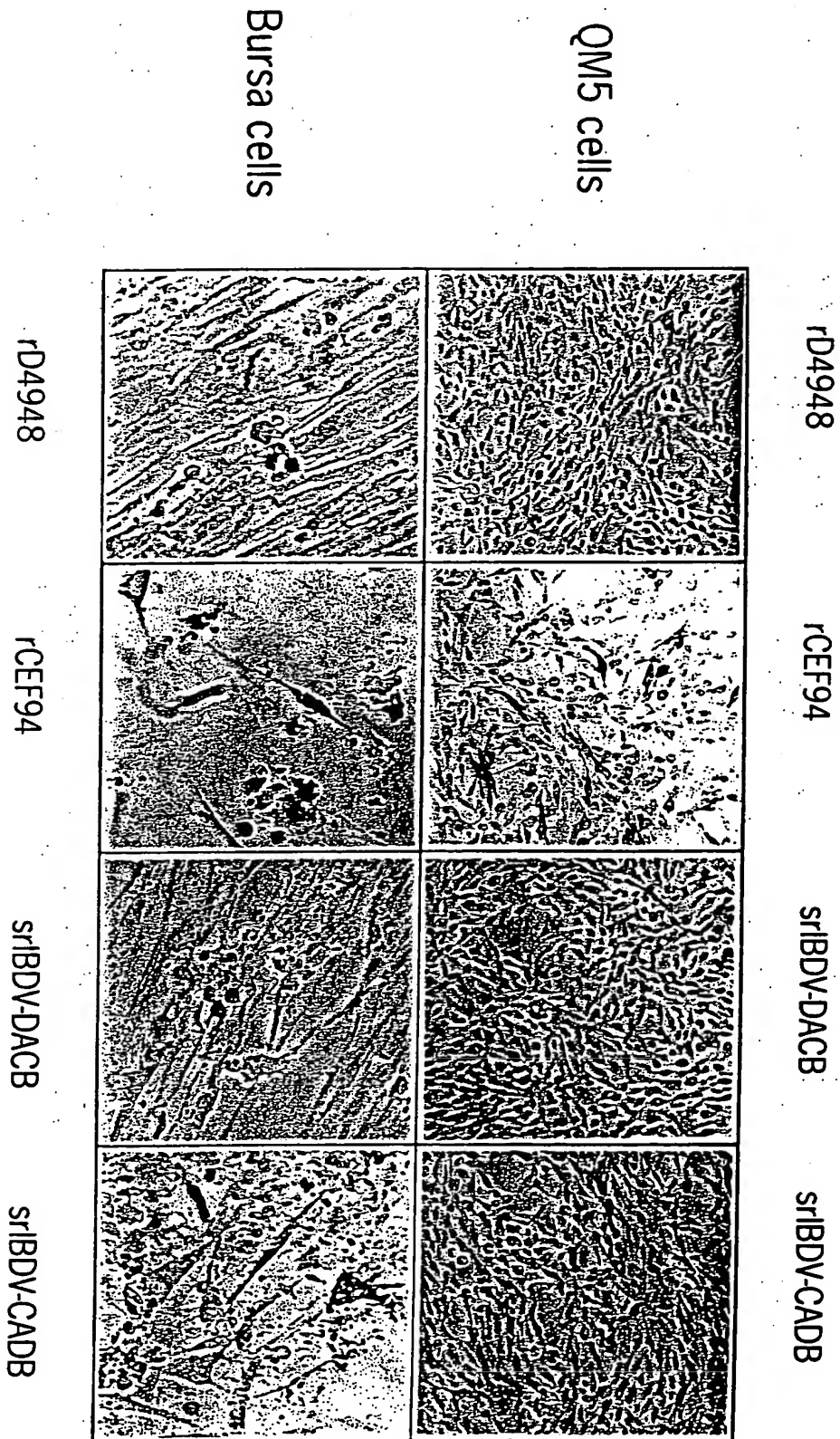


FIG. 24



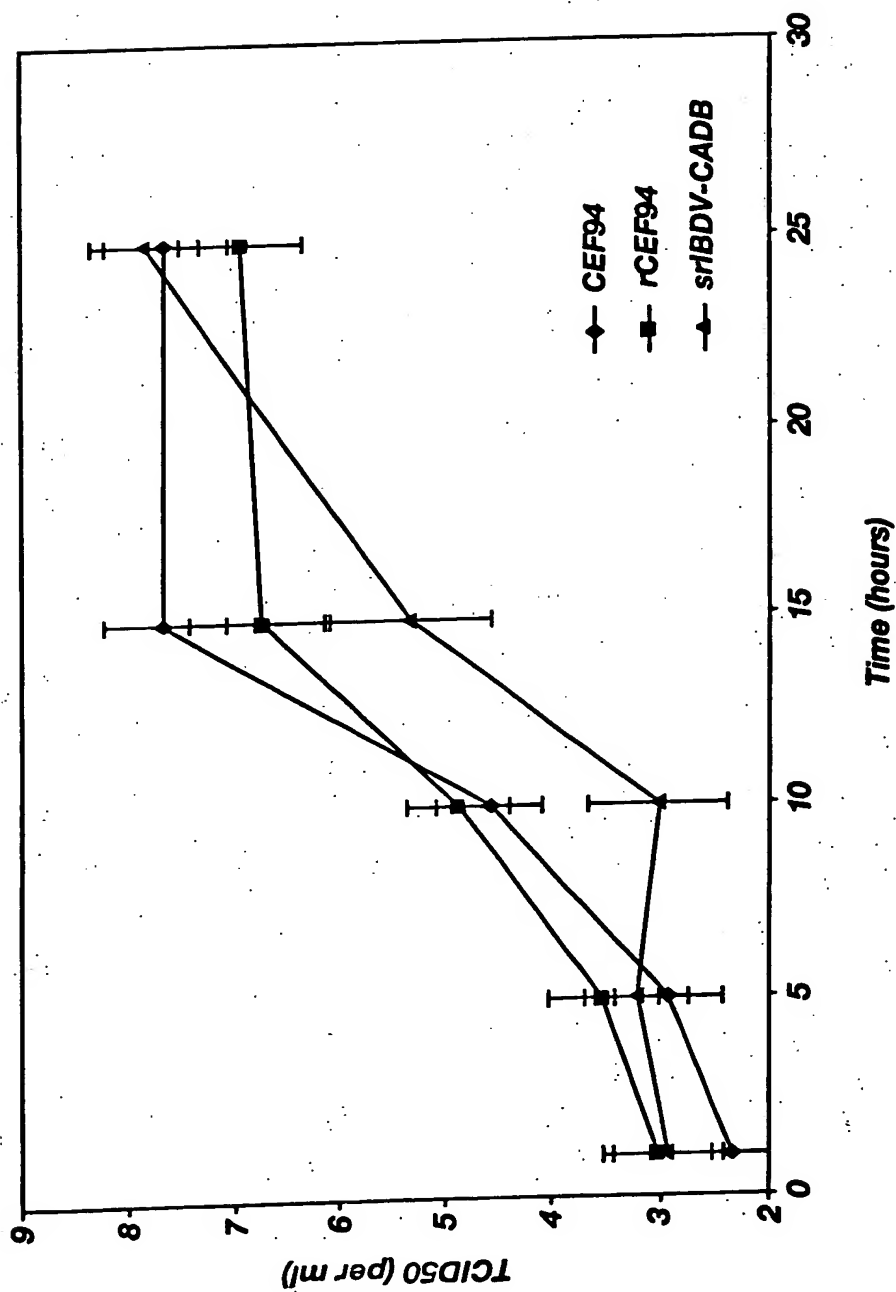


FIG. 25

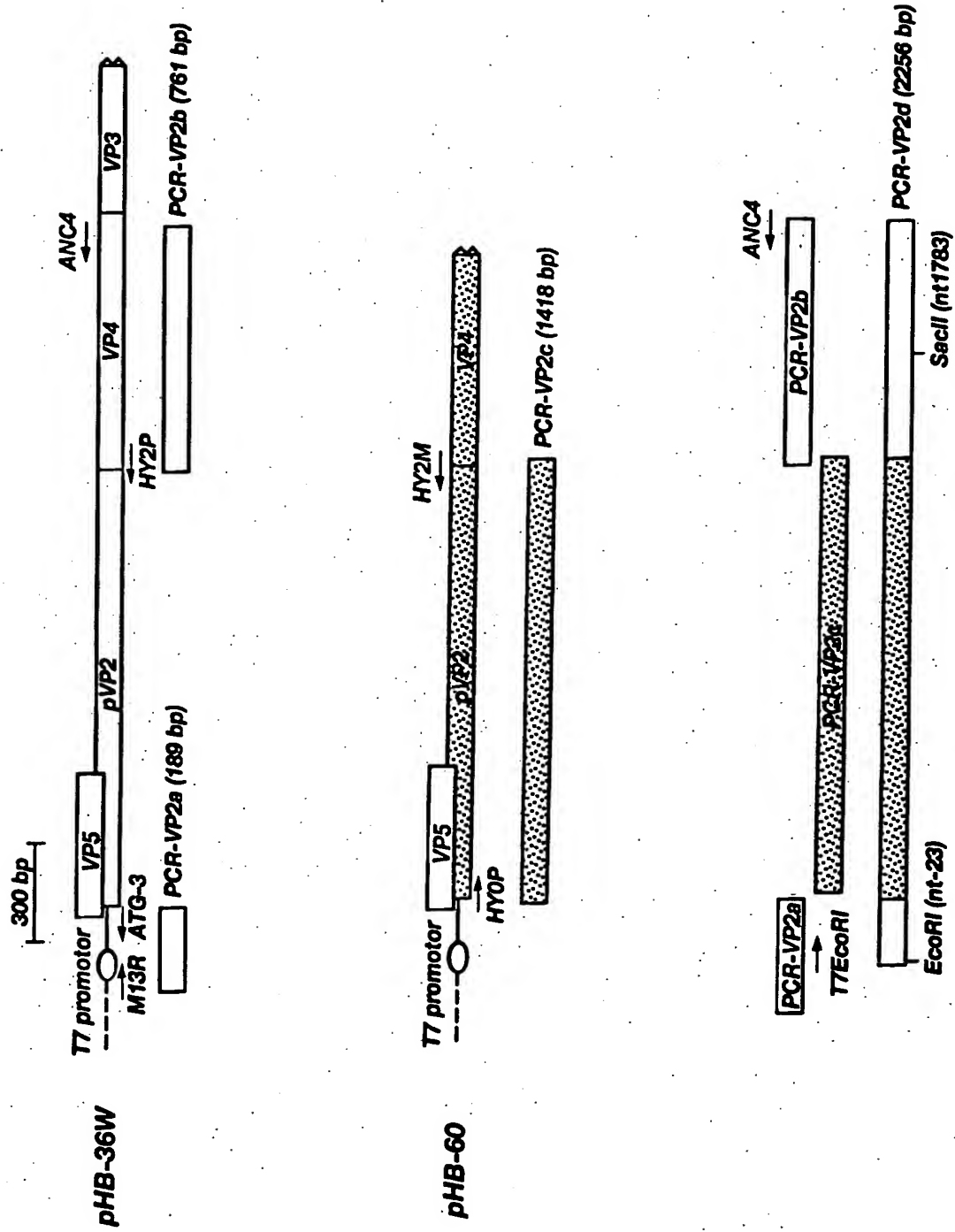


FIG. 26

FIG. 27

